

*Archives of*  
**PHYSICAL MEDICINE**  
*and* **REHABILITATION**

**ORIGINAL ARTICLES**

Rehabilitated for Living. Morton Hoberman, M.D., and Benjamin H. Lipton, M.A. . . . 75

•

Physical Medicine and Rehabilitation in a Chronic Disease Hospital.

Jerome S. Tobis, M.D.; Milton Lowenthal, M.D., and Ira Belmont, Ph.D. . . . . 82

•

Physical Treatment Employed in the Rehabilitation of a Patient with Morquio's

Disease. Roy T. McReynolds, M.D. and O. Leonard Huddleston, M.D., Ph.D. . . 87

•

Social Security for the Disabled. Arthur B. Price, M.D. . . . . 92

•

Committee Reports . . . . . 97

•

Book Reviews . . . . . 118

•

Editor of the Month

**FRED B. MOOR, M.D.**

Los Angeles

# confidence

vested in you by patients demands not only the best of personal service but the ultimate in precision equipment of proven merit. Such equipment is labeled

**DALLONS**



SINE-GALVANIC GENERATOR

SINE WAVE GENERATOR

May we suggest, when you consider new equipment that you think first of Dallons — specialists in medical electronics — since 1931.



MEDI-THERM



MOBILE MEDI-SONAR



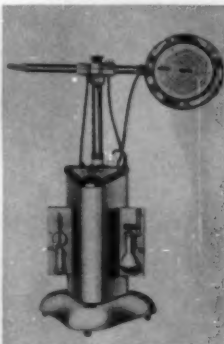
CONSOLE MEDI-SONAR



SPOT QUARTZ



ORIFICIAL QUARTZ



BODY QUARTZ

Write for catalog data sheets of the all-new 1958 FUTURA SERIES — Dallons Equipment for Physical Medicine.

**DALLONS**

LABORATORIES, INC.

5066 Santa Monica Blvd. • Los Angeles 29, Calif.

# ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION

30 North Michigan Avenue, Chicago 2, Illinois

OFFICIAL JOURNAL  
AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION  
AMERICAN ACADEMY OF PHYSICAL MEDICINE AND REHABILITATION

Original contributions, exchanges and books for review should be forwarded to the Editorial Office. All business matters including advertising should be handled through the Executive Office, 30 N. Michigan Ave., Chicago 2, Illinois. The statements in the manuscripts published in the ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION are made solely on the responsibility of the author. The American Congress of Physical Medicine and Rehabilitation and/or the American Academy of Physical Medicine and Rehabilitation does not assume any responsibility for statements contained therein. Manuscripts accepted for publication in the ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION are for exclusive publication and may not be published elsewhere.

## OFFICERS

American Congress of Physical Medicine  
and Rehabilitation

DONALD L. ROSE, M.D.  
Kansas City, Kans., President  
ARTHUR C. JONES, M.D.  
Portland, Ore., President-Elect  
FREDERIC J. KOTTKE, M.D.  
Minneapolis, First Vice-President  
DONALD A. COVALT, M.D.  
New York, Second Vice-President  
DONALD J. ERICKSON, M.D.  
Rochester, Minn., Third Vice-President  
JEROME S. TOBIS, M.D.  
New York, Fourth Vice-President  
LOUIS B. NEWMAN, M.D.  
Chicago, Fifth Vice-President  
FRANCES BAKER, M.D.  
San Mateo, Calif., Secretary  
FRANK H. KRUSEN, M.D.  
Rochester, Minn., Treasurer  
WALTER J. ZEITZ, M.D.  
Cleveland, Executive Director  
DOROTHEA C. AUGUSTIN  
Chicago, Executive Secretary

## EXECUTIVE COUNCIL

A.B.C. Knudson, M.D., Washington, D. C.,  
Chairman.  
Norman E. Titus, M.D., Verona, N. J.,  
Secretary.  
Robert L. Bennett, M.D., Warm Springs, Ga.  
William Bierman, M.D., New York.  
Earl C. Elkins, M.D., Rochester, Minn.  
Kristian G. Hansson, M.D., New York.  
Abraham B. Hollender, M.D., Miami Beach,  
Fla.  
O. Leonard Huddleston, M.D., Santa Monica,  
Calif.  
H. Worley Kendell, M.D., Peoria, Ill.  
Miland E. Knapp, M.D., Minneapolis.  
Frank H. Krusen, M.D., Rochester, Minn.  
Gordon M. Martin, M.D., Rochester, Minn.  
Walter S. McClellan, M.D., Chapel Hill, N. C.  
Fred B. Moor, M.D., Los Angeles.  
William D. Paul, M.D., Iowa City.  
Nathan H. Poiner, M.D., New Orleans.  
William H. Schmidt, M.D., Philadelphia.  
Wm. Benham Snow, M.D., New York.  
Arthur L. Watkins, M.D., Boston.  
Donald L. Rose, M.D., Kansas City, Kans.,  
Ex-officio.

Subscription—In the United States, its possessions, and Mexico, \$7.00 yearly; Canada, \$8.00; elsewhere, \$14.00 the year; \$0.75 per single copy; special issues \$1.00 per single copy. Advertising rates on application. All advertising copy subject to acceptance by Publication Committee. COPY-RIGHT: Matter appearing in the ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION is covered by copyright. Permission will be granted on request for reproduction in reputable publications if proper credit is given. Reproduction for commercial purposes will not be permitted. Published monthly at Chicago, Illinois, by the American Congress of Physical Medicine and Rehabilitation. Entered as Second Class Matter at the Post Office at Chicago, Illinois. Copyright 1958, by the American Congress of Physical Medicine and Rehabilitation.

## EDITORIAL BOARD

EARL C. ELKINS, M.D., Rochester, Minn., Chairman  
ARTHUR C. JONES, M.D., Portland, Ore.  
FREDERIC J. KOTTKE, M.D., Minneapolis  
FRED B. MOOR, M.D., Los Angeles  
PAUL A. NELSON, M.D., Cleveland  
OSCAR O. SELKE, JR., M.D., Houston  
ARTHUR L. WATKINS, M.D., Boston

## CONSULTANTS TO EDITORIAL BOARD

C. KNIGHT ALDRICH, M.D., Chicago  
LENOX D. BAKER, M.D., Durham, N. C.  
LEO BARTEMEIER, M.D., Baltimore  
CYRIL COURVILLE, M.D., Los Angeles  
ROBERT C. DARLING, M.D., New York City  
OTTO GLASSER, Ph.D., Cleveland  
JAMES G. GOLSETH, M.D., Pasadena, Calif.  
W. HENRY HOLLINSHEAD, Ph.D., Rochester, Minn.  
WILLIAM KUBICEK, Ph.D., Minneapolis  
MEYER A. PERLSTEIN, M.D., Chicago

The ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION is devoted to the publication of significant articles in this particular field. Contributions of interest to those in physical medicine and rehabilitation are invited. Articles are accepted only with the understanding that they are contributed exclusively to the ARCHIVES. Articles and accompanying illustrations become the property of the journal.

## MANUSCRIPTS

Submit only the original copy of the article, but retain a copy for use in correcting galley proofs. Carbon copies are not acceptable for editing and typesetting purposes.

## REFERENCES

References should be placed at the end of the manuscript and should conform to the style of the Quarterly Cumulative Index Medicus. No more than twenty references should be included with a manuscript.

## ILLUSTRATIONS

Only reproducible illustrations will be accepted. All photographs must be black and white glossy prints, clear cut and contrasting. The size of each photograph submitted should be no larger than 5" x 7". Instructions for combining photographs are acceptable. The Editorial Board reserves the right to limit the number and size of illustrations used with any manuscript submitted for publication. Any number of illustrations over three (3) is charged to the author.

## REPRINTS

Reprint order blanks with a schedule of prices will be attached to galley proofs. Individual reprints of an article must be obtained direct from the author.

## COPYRIGHT

Matter appearing in the ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION is covered by copyright. Permission for reproduction must be directed to the Editorial Board.

Detailed information covering instructions for the preparation of manuscripts for publication may be had by writing direct to the Editorial Office, 30 N. Michigan Ave., Chicago 2.



**TECA**  
CORPORATION

CONSOLE MODEL CD4PS

## low volt generator

The most complete model for the P.M.&R. Department. Newly designed; a unit of proven utility, now improved and simple to operate. Model CD4PS provides a comprehensive range of AC and DC (galvanic) currents for all therapy and R. D. testing applications. A broad spectrum of sine, square wave and pulse currents are available. Separate circuits are used for AC and DC output. Supplied in a stain-proof formica cabinet.

Write for detailed  
bulletin CD4

TECA CORPORATION • 80 MAIN ST., WHITE PLAINS, N. Y.



*complete integrated facilities for*

## ELECTROMYOGRAPHY

- **SINGLE CHANNEL EMG** with two-channel magnetic tape recorder for recording notes and EMG simultaneously.  
Model TE 1.2-7
- **TWO-CHANNEL EMG** permits simultaneous recording and study of two EMG potentials or of one potential together with a related physical parameter such as force or pressure.  
Model TE 2-7
- Automatic controls and new circuits provide simplified reliable operation without shielded rooms in most locations. • EMG potentials faithfully reproduced by special recorder circuits. • Specifications equal or surpass requirements for research, teaching and clinical use.
- **NEW rugged COAXIAL NEEDLE ELECTRODE** with-stands autoclaving, has tapered shaft with 26 gauge tip and insulated handle.



**TECA**  
CORPORATION

80 Main St.  
White Plains  
New York



MORE and MORE ultra-sound users are changing to the  
*Medco-sonlator* WHY? ... RESULTS!

Provides HEAT-  
 with RHYTHMIC  
 MECHANICAL  
 OSCILLATIONS,  
 PLUS MASSAGE-  
 with ELECTRICAL  
 MUSCLE  
 STIMULATION



The MEDCO-SONLATOR combines two proven therapies into one unit. This permits the use of Electrical Muscle Stimulation and Ultra-sound (from the same unit) either individually or simultaneously. It is truly a complete therapy, Ultra-Sound, Neuro-Muscle Stimulation, Massage, Heat, and above all, the Combined Therapy with its Diagnostic ability.

Write Department "A" for Complete Information

The MEDCO-SONLATOR carries F. C. C. Type Approval No. U-135 and is licensed under U. S. Patents to A. T. & T. and Western Electric Company for Therapeutic Generators. Pats. Pend.

and FREE Myofascial Chart.

FOR THOSE DESIRING ONLY  
 MUSCLE STIMULATION  
 see the

*Medcolator*®

WITH RECIPROCAL STIMULATION

The Medcolator provides electrical stimulation, an adjunct therapy for sprains, dislocations and other trauma of the muscle and skeletal systems.



**MEDCO ELECTRONICS COMPANY, INC.**

3607 EAST ADMIRAL PLACE • P. O. BOX 3275 • TULSA, OKLA

## ULTRA SOUND Model 3200-C



F.C.C. Approval No. U-109

## THREE MODALITIES:

IMPULSE — CONTINUOUS — SURGE

- Ample power output
- Direct reading dual scale meter
- Transducer—precision-ground; convenient size
- Fully approved and certified
- Automatic timer control
- Console or clinic model
- All Steel Cabinet 18½" wide, 14" deep, 28" high, finished in silver grey enamel or Fischer white

Send for complete details to:  
R. A. FISCHER & CO.  
517 Commercial St., Glendale 3, Calif.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_

State \_\_\_\_\_

(no obligation)

R. A. FISCHER & CO.

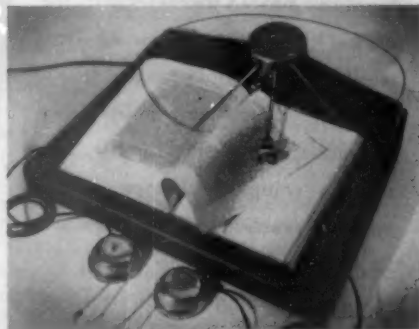
Manufacturers of  
Electro Therapy Products



FISCHERTHERM • FISCHERSINE • FISCHERQUARTZ • PEDASINE • FISCHER ULTRA SOUND

## TURN-A-PAGE • *turns magazine and book pages automatically, for those whose arms and hands are incapacitated*

Only one who has had to rely upon others for their every need can appreciate the satisfaction of again being able to do something for himself without having to impose upon someone else. **Turn-A-Page** brings that most important measure of independence into the life of one who is manually disabled.



**Turn Pages Forward or Backward.** The Turn-A-Page is operated by two very sensitive switch mechanisms which are placed next to the reader whenever he can exercise movement. The twitch of a toe, the puff of the cheek or even the lift of an eyebrow is sufficient movement to operate the Turn-A-Page. One switch turns pages forward — the other switch turns pages backward.

**HAGMAN ENTERPRISES**  
3700 LA CRESCENTA AVENUE • GLENDALE 3, CALIF.

## **MODEL M2 ELECTROMYOGRAPH**

presenting a new technique  
for the analysis of biological phenomena.

Two independent channels.  
Visual presentation on two-beam oscilloscope.  
Audible presentation on loud speaker.  
Magnetic tape record.  
20-1 playback to graphic recorder.



write for descriptive  
literature and prices on:  
ELECTROMYOGRAPHS  
ELECTROENCEPHALOGRAPHS  
STRAIN GAGE AMPLIFIERS  
RECORDER PAPER  
ELECTRODES  
SHOCK THERAPY EQUIPMENT

### **MEDCRAFT ELECTRONIC CORP.**



designers and manufacturers of diagnostic  
and therapeutic equipment for the medical profession

**426 GREAT EAST NECK ROAD, BABYLON, N. Y.**

TEL. MCHAWKE 9-7537

ADDRESS MAIL TO BOX 1086, BABYLON, N. Y.

# H. G. Fischer & Co.

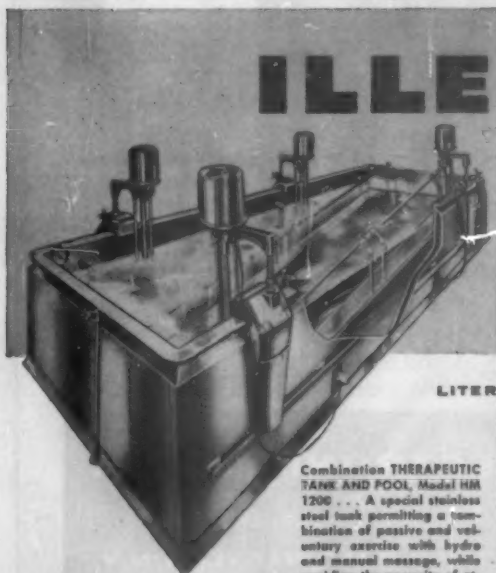
## Portable

## ULTRASONIC

## Generator

1. Federal Communications Commission Type approval No. U-153
2. Underwriters' Laboratories Approval
3. Genuine Quartz Crystal of five square centimeters
4. Output up to fifteen Watts, total
5. Intensity selected on Indexed Rotary Switch with steps of 0.2, 0.5, 1.0, 1.5, 2.0 and 3.0 Watts per square centimeter, each of which is calibrated.
6. Handle for easy carrying and wrap-around for cables
7. Bracket furnished for wall mounting
8. Cabinet also fits standard size Mobile Utility Stand
9. Cabinet dimensions: 16 1/2" long, 10" deep, 5 1/4" high
10. Weight 28 pounds

H. G. FISCHER & CO. • Franklin Park, Illinois

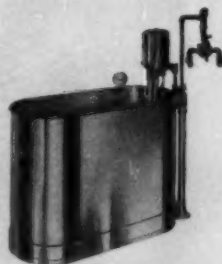


**Combination THERAPEUTIC TANK AND POOL, Model HM 1200 . . .** A special stainless steel tank permitting a combination of passive and voluntary exercise with hydro and manual massage, while avoiding the necessity of attendant entering the water.

# ILLE

ELECTRIC CORPORATION  
Reach Road, Williamsport, Pa.

**ENGINEERED**  
for efficient,  
economical service



**Combination ARM, LEG AND HIP TANK, Model HM 650 . . .** Stationary, stainless steel unit for hydromassage and sub-aqua therapy. Water mixing valve is thermostatically controlled.

LITERATURE ON REQUEST

**Wedge MOBILE SITZ BATH, Model SS 100 . . .** For hospital, clinic or office use . . . sturdy stainless steel and aluminum . . . easy to clean and assemble. Electric heater (optional) maintains temperature of solution.







SEND FOR  
YOUR CATALOG OF

## Rehabilitation Products

Rehabilitation Products offers you the most complete variety of advanced equipment and supplies in the field—plus unequalled distribution and service facilities. So send for your helpful RP Catalog today!



**TOMAC  
Plastic  
Goniometer**

New, clear plastic Goniometer offers three big advantages: 1) you can locate pivot points

and observe joint action through the plastic; 2) it holds firmly in any set position; 3) has double 180° scale. Over-all length 12½".

No. 1340—Former Price, each .....\$11.75  
**SPECIAL PRICE, NOW .....\$9.75**

**TOMAC Ankle-Action Tripod Cane**



Patients are assured of constant stability with the new Angle-Action Tripod Cane (at left). All three feet are kept in contact with the floor at all times by the flexible rubber mount.

No. 7883  
Each .....\$9.75  
Dozen, each ..\$9.00

**Canadian Crutches (at right).** Lightweight, but strong aluminum and easy to handle. Adjust from 28½" to 35". Hinged arm band.

No. 7845 — Pair .....\$18.00



**Ball Bearing Feeder**

Increase self reliance of patients with arm paralysis. With feeder, patient can get his hand from plate to mouth, write, paint or read with minimum effort—without assistance. Fits any make metal wheel chair. Specify right or left hand.

No. 5220 — Each .....\$37.50



**TOMAC Portable Ultrasonic Generator**  
Lightweight — only 28 lbs. May be carried from patient to patient or hung on a wall. Natural quartz crystals produce reliable frequency with output controlled in pre-set stages. 5 sq. cent. transducer head. UL listed.

No. 1707—Ultrasonic Generator.  
Each .....\$375.00  
Less 10% hospital discount.

To receive your Rehabilitation Products Catalog, just complete and mail this coupon.



## Rehabilitation Products

Division of American Hospital Supply Corporation  
Department PMR  
2020 Ridge Avenue, Evanston 22, Illinois

☐ ENTER MY ORDER NOW.

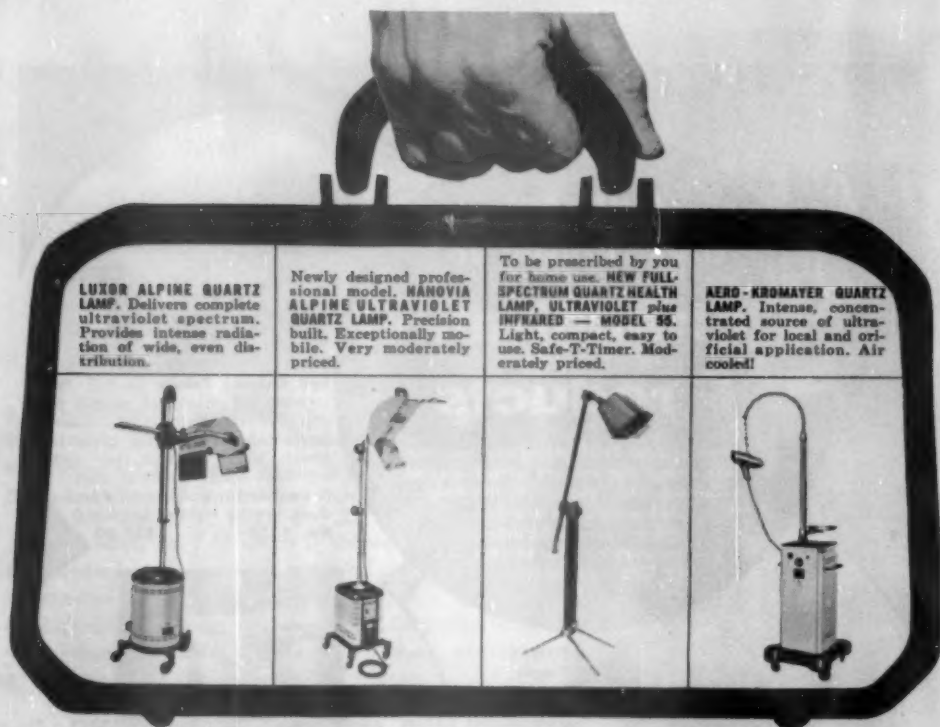
☐ SEND ME YOUR REHABILITATION PRODUCTS CATALOG.

Name.....Title.....

Organization.....(Name of Hospital, clinic, etc.)

Address.....

City and Zone.....State.....



# Ultraviolet therapy speeds convalescence!

## Recognized ancillary treatment in physical rehabilitation

Essential adjunct in physical medicine, ultraviolet treatment is particularly effective in increasing blood hemoglobin level. Exposure to Hanovia ultraviolet improves absorption and utilization of calcium, iron, nitrogen and phosphorus.

Authoritative report reads: "The blood changes produced by ultraviolet radiation are increased number of red and white cells and platelets, lowered blood sugar, increased sugar tolerance, increased blood calcium, relative lymphocytosis and eosinophilia." Other authorities report: "Ultraviolet exerts a glycogen storing effect preventing the lowering of respiratory quotients after muscular exercise."

In addition to your office use of ultraviolet equipment, ease your schedule by prescribing home ultraviolet therapy, yet maintain treatments under your control. New Hanovia Health Lamp Model 55, prescribed by you, may be purchased from surgical supply dealers.

**Yours On Request:** Valuable authoritative treatise describing ultraviolet in physical rehabilitation. Without obligation write for your free copy. Dept. PMR-2



# PRESTON

## A Complete Line

### FOR PHYSICAL MEDICINE AND REHABILITATION

*Featured Items for February* - WRITE FOR ILLUSTRATED LITERATURE.



#### • "AMBUL-AID" — TRAINING WALKER

The ONE Walker that can be used for every type patient. New Design. Crutches laterally and vertically adjustable by finger-tip control. Wheels have brakes. Each wheel swivels independently or locks in parallel position — giving the walker lateral stability when needed (for performing swing through gait, etc.). Adjustable in height. Substantially constructed — entirely of aluminum. Order by Catalog Numbers:

PC 2340 Ambul-Aid Adult Size complete ..... **\$176.50**

PC 2342 Same — less hip strap and abductor rods ..... **\$165.50**

Also available in Child Size (at \$6.00 below price of Adult Walker)

#### • THE NK EXERCISE UNIT MODEL 100

... was developed for effective administration of progressive resistance exercises to the important knee joint muscle groups. It consists of a table (30x36x30" high), one resistance arm for weights, one exercise arm and an ROM indicator. The angle between the arms is adjustable — therefore *maximum or minimum resistance can be given at any point in the range*, and a variety of resistance patterns can be obtained. This unit may also be used for BK amputees or BK fracture cases. An efficient and time-saving adjunct to any PT program. Used in many leading hospitals and rehabilitation centers. Order by Catalog Numbers:

PC 2251A NK Exercise Unit Standard Model 100 ..... **\$179.50**

PC 2251F NK Folding Model 200 with  
folding table for wall attachment ..... **\$179.50**



#### • THE NEW PRESTON CATALOG 1058

Describes Today's Most Complete Line of Equipment for REHABILITATION, EXERCISE, HYDROTHERAPY and ELECTRO-THERAPY. Also: DIAGNOSTIC APPARATUS, TRACTION DEVICES, CEREBRAL PALSY FURNITURE, WHEELCHAIRS, WALKERS, LIFTERS, CRUTCHES and SELF HELP DEVICES. Write for your free copy today.

Layouts and lists of suggested equipment for new departments are available free of charge.

## J. A. PRESTON CORP.

175 FIFTH AVENUE, NEW YORK 10, N. Y.

**PHYSICIANS ASKED  
FOR ULTRASOUND**



**HREE TO ONE**



## **BURDICK UT-4** *portable* **ULTRASONIC UNIT**

"Two years ago, the ratio of orders coming into our department from physicians specifying ultrasound compared to other conventional modalities was 1:15. In December, 1956 that ratio reversed itself to 3:1 in favor of ultrasound."\*

These figures are impressive because they represent referred cases, not indiscriminate use by one person. Ultrasound's superior localization of heat, its micro-massage benefits, have been proven in use.

Burdick offers you an even greater proof of its effectiveness: a free trial demonstration of our UT-4 portable or UT-1 office model. You'll find dependable performance and ease of operation.



\* Figures taken from article by Kenneth Phillips, M.D., F.A.C.P., in *GENERAL PRACTICE*, The Medical Journal of the West, March, 1957.



**THE BURDICK CORPORATION**  
MILTON, WISCONSIN  
Branch Offices: NEW YORK • CHICAGO • ATLANTA  
• LOS ANGELES  
Dealers in all principal cities



# Rehabilitated For Living

Morton Hoberman, M.D.  
and  
Benjamin H. Lipton, M.A.  
New York, N. Y.

● A review is presented of the status of graduates of the Joseph Bulova School of Watchmaking. Graduates whose disability resulted from injury or disease to the spinal cord, and those who have had tuberculosis or cardiac disease are studied. These particular individuals were selected because of the severity of the disability and the difficulty usually encountered in vocational placement.

As a result of a previous study reported several years ago,<sup>1</sup> we were convinced that it would be desirable to review periodically the status of the graduates of the Joseph Bulova School of Watchmaking. This report is concerned with those graduates whose disability resulted from injury or disease to the spinal cord, and those who have had tuberculosis or cardiac disease. These were selected because of the severity of the disability and the difficulty usually encountered in vocational placement.

Our own motivation in this study was the determination of the status, physically and vocationally, of our graduates. At the school we are frequently asked by visitors from this and other lands whether the tremendous effort, time, and monies involved in the total rehabilitation of our students can be validated by the actual results.

The results of this study were obtained by a preliminary questionnaire sent to all graduates, followed by a personal visit by one of the authors or by a telephone conversation with the graduate. All information was gathered within a period from February through May, 1957.

Between 1946 and 1957, there have been 192 graduates in the three categories of disability previously mentioned. There were 102 disabled by injury or disease of the spinal cord, 64 disabled by tuberculosis, 26 disabled by cardiac disease. Since graduation, 6 have died — 3 paraplegics (2 due to uremia, 1 due to an auto accident), 1 tuberculous patient (auto accident), and 2 cardiacs (both had recurrent cardiac attacks).

Chart 1 gives the level or type of lesion and the number of years since graduation. It will be noted that 27 of the paraplegic lesions were above the level of D 10.

This is only pointed out because such lesions usually result in more serious disability, such as greater trunk instability, more frequent urinary complications, and less likelihood of ambulation. There were but very few mild tubercular lesions (5), the vast majority were moderately or far advanced. In this group 19 major surgical procedures were also performed on patients prior to their schooling. Some of the tuberculous students had spent as much as eight years in hospitals prior to coming to school. All of the cardiac graduates were in category II B.

## Medical Data on Paraplegic Graduates

Chart 2 sets forth the medical data relative to the paraplegic graduates. Of the 99 who are still living, 88 are included in this report (in 11 instances the data were either unobtainable or insufficient for this report). Fifty per cent have been hospitalized one or more times for a total of 77 periods since graduation. Forty-seven of the 77 periods of hospitalization were as a direct result of the original disability. By far the outstanding cause for hospitalization has been genitourinary complications. The next most frequent cause for hospitalization in this group was trophic skin lesions. The periods of hospitalization varied from 5 days (transurethral resection) to 450 days (multiple skin lesions requiring several surgical procedures). There were 24 other periods of hospitalization for reasons not related to the original disability. The time spent in the hospitals for these varied from 14 days (pneumonitis) to 480 days (multiple fractures following an automobile accident).

In the performance of daily activities, 13 graduates reported that they have improved to a noticeable extent since

Read by title at the Thirty-fifth Annual Session of the American Congress of Physical Medicine and Rehabilitation, Los Angeles, September 8-13, 1957.  
Medical Consultant, Joseph Bulova School of Watchmaking.

Administrator, Joseph Bulova School of Watchmaking.

Chart 1: Years Since Graduation

Years	1	2	3	4	5	6	7	8	9	10	11	Total
Cervical .....	0	0	1	0	0	0	0	1	0	0	0	2
D 1-9 .....	2	1	2	0	3	0	9	7	1	0	0	25
D 10-L 5 .....	3	1	2	6	3	9	12	18	6	0	1	61
Poliomyelitis, etc. ....	0	3	2	2	1	1	0	0	2	0	0	11
Mild tuberculosis .....	1	1	1	1	0	1	0	0	0	0	0	5
Mod. adv. tuberculosis .....	3	6	4	8	2	6	3	3	1	2	1	41
Far adv. tuberculosis .....	4	3	1	2	1	2	0	0	0	0	0	19
Extra pul. tuberculosis .....	1	0	2	1	0	0	0	1	0	0	0	5
Rheum. heart disease .....	1	1	2	0	1	0	0	1	7	2	0	15
Hypertensive heart disease .....	1	0	0	1	0	0	0	1	0	0	0	3
Coronary heart disease .....	1	0	1	0	0	0	1	0	2	0	1	6
TOTAL .....	17	15	18	21	11	19	25	34	19	4	3	186

Chart 2: Medical Summary on Paraplegic Graduates

Level of Lesion	Cervical	D1 to D9	D10 to L5	Poliomyelitis, etc.
Total Number Graduated 99 .....	2	25	81	11
Reporting 88 (88.8%) .....	2 (100%)	23 (92%)	53 (85%)	11 (100%)
A. D. L. Improved .....	1	1	9	2
Unchanged .....	1	22	48	9
Standing or Walking — 0 .....	—	18	25	7
Hours per day 1 — 4 .....	—	5	17	3
5 plus .....	2	—	10	1
Wheelchair Use — 0 .....	2	—	10	1
Hours per day 1 — 8 .....	—	1	4	2
8 plus .....	—	22	38	8
Sick Leave 0 — 2 .....	1	17	40	10
Weeks Per Year 2 — 8 .....	1	2	8	1
8 plus .....	—	4	4	—
Number Hospitalized Since Graduation .....	1	12	28	3
Total Number of Hospitalizations .....	2	23	48	5
Due to Disability Skin .....	—	4	6	—
G U .....	2	10	17	1
Other .....	—	2	11	—
Not Related to Disability .....	—	6	14	4
Length of Hospitalization				
Due to Disability 1 wk. — 3 mos. ....	1	8	22	—
3 to 6 mos. ....	1	5	10	1
6 to 12 mos. ....	—	1	2	—
12 to 18 mos. ....	—	2	—	—
Not Related to Disability				
1 wk. — 3 mos. ....	—	6	10	4
3 to 6 mos. ....	—	—	3	—
12 to 18 mos. ....	—	—	1	—
Number Under Routine Medical Care .....	0	3	6	0

graduation. None has reported a deterioration in this area. Also 13 report that they are standing and walking more than 5 hours each day; however, these are the same 13 who did not use a wheelchair while at school. While they were at school, at least 75 per cent of all the paraplegics stood and walked for at

least one hour daily. At present 50 graduates report that they do not stand or walk routinely each day. Sixty-eight of the graduates spend more than 8 hours a day in a wheelchair; 7 spend from 1 to 8 hours per day in the wheelchair; the remaining 13 do not use a wheelchair. Excluding the periods of hospitalization,

68 of the graduates have taken less than 2 weeks sick leave per year since graduation; 11 have had 2 to 8 weeks of sick leave in at least one year, and 8 have had more than 8 weeks sick leave in at least one year since graduation. Perhaps the most surprising part of this report was that only 9 of this entire group of 88 paraplegic graduates have a routine medical examination at least once a year. Even if we omit the 44 who have been hospitalized since graduation, this still leaves but 9 of 44 who are receiving routine medical care.

#### Medical Data on Tuberculous Graduates

The medical follow-up of the tuberculous graduates is given in Chart 3. Of the 63 graduates, 59 responded to our questionnaire (93 per cent). In this group almost 85 per cent are still receiving periodic examinations. Slightly over 20 per cent have been rehospitalized since graduation. One graduate with far advanced tuberculosis is at present in a hospital. Eight have been hospitalized due to reactivation of tuberculosis, and 5 have been hospitalized for nonrelated

Chart 3: Medical Summary on Tuberculous Graduates

Type of Lesion	Mild	Moderate Advanced	Far Advanced	Extra Pulmonary
Total Number Graduated 63 .....	5	41	12	5
Reporting 59 (93.6%) .....	5 (100%)	37 (90%)	12 (100%)	5 (100%)
Medical none .....	1	6	1	1
Reexaminations q. 3 mos. ....	1	6	—	1
q. 6 mos. ....	3	16	7	1
q. 12 mos. ....	—	9	3*	2
Number Hospitalized Since Graduation .....	1	6	3	2
Total Number of Hospitalizations .....	1	6	3	3
Due to Disability .....	1	3	1	3
Not Related to Disability .....	—	3	2	—
Length of Hospitalization				
Due to Disability 1 - 3 mos. ....	1	1	—	1
4 - 6 mos. ....	—	1	—	—
7 - 12 mos. ....	—	—	—	2
13 - 18 mos. ....	—	1	1	—
Not Related to Disability				
1 - 3 mos. ....	—	3	2	—

\*One hospitalized at present.

Chart 4: Medical Summary on Cardiac Graduates

Type	Rheumatic Heart Disease	Hypertensive Heart Disease	Coronary Heart Disease
Total Number Graduated 24 .....	15	3	6
Reporting 21 (87.5%) .....	13 (86.6%)	3 (100%)	5 (83.3%)
Continued Regular Medical Care .....	Yes — 11 No — 2	Yes — 3 No — 0	Yes — 4 No — 1
On Routine Medication .....	Yes — 3 No — 10	Yes — 1 No — 2	Yes — 0 No — 5
Number Hospitalized Since Graduation .....	3	1	0
Total Number of Hospitalizations .....	3	1	0
Due to Disability .....	3	0	0
Not Related to Disability .....	1	1	0
Length of Hospitalization			
Due to Disability 1 - 3 mos. ....	3	0	0
Not Related to Disability 1 - 3 mos. ....	1	1	0

conditions. In only two instances has hospitalization lasted up to 18 months. To the best of our knowledge only one graduate, other than the one who is presently hospitalized, is on active anti-tuberculosis medication.

#### Medical Data on Cardiac Graduates

The medical follow-up of the cardiac graduates is given in Chart 4. Of the 24 graduates, 21 responded to our questionnaires (87.5 per cent). More than 85 per cent of those who responded have had and are still having routine medical care as prescribed by their physicians. Three of the graduates with rheumatic heart disease and one with hypertensive heart disease are on routine daily medication. There have been four periods of hospitalization since graduation, two because of recurrence of rheumatic symptoms, the other two because of nonrelated conditions. In no instance was hospitalization necessary for more than three months. In both the tuberculous and cardiac groups no graduate has had sick leave for more than two weeks per year since graduation excluding the periods of hospitalization.

#### Vocational Data on Paraplegic Group

The vocational summary of the graduates is given in Charts 5 (paraplegia), 6 (tuberculosis), and 7 (cardiac disease). Eighty-five of the 88 paraplegic graduates are employed, with 80 utilizing the skills in which they were trained. There are 5 at present employed in nonrelated vocational fields. Two are unemployed and one has just entered the hospital. The two unemployed are not interested in obtaining a job although they are skilled technicians and can do a full day's work.

This group consists of 79 veterans and 9 civilians. They are at present located in 22 states; 74 are married and 14 are single.

The vast majority of those who are doing watch repair at home (19 out of 21) work on the average of 1 to 5 hours per day. Five of them report that they

had worked full time (6 to 8 hours per day) in previous years but discontinued such employment outside the home because of recurrent complications (skin and bladder).

Sixty-four are at present working outside of the home an average of 8½ hours per day (the range is from 6 to 11 hours per day). Twenty of the 64 own and operate their own jewelry and watch repair stores. The store assets vary from \$1,500 to \$65,000. Most stores are individually operated, but in a number of stores one or more employees are also working. These stores have been in operation from 2 to 10 years. The 23 graduates who are utilizing the skills acquired at school in related industry are employed at present as instrument technicians, instrument repairmen, instrument assemblers, electrical assemblers, junior engineers, quality analysts, and laboratory technicians. Ninety per cent of the paraplegics are veterans and are receiving pensions. We find that, with the exception of the two unemployed previously mentioned, there is no lack of motivation to earn a livelihood. Of the 65 graduates, who we believe accurately reported their income, the average earning per year was \$4,100 (1956). It was also interesting for us to note that more than half of the paraplegic graduates participated in some extracurricular activities in the community. These include fund raising for community projects and churches, directors of recreations for the community, little league activities, and sponsorship of recreational activities for disabled teenagers.

#### Vocational Data on Tuberculous Group

The tuberculous graduates consist of 42 veterans and 17 civilians who are located in 11 states. The vast majority, however, are in the New York, New Jersey, and Connecticut area. All 59 of the graduates are employed although two are working on a part-time basis (less than 5 hours per day). This particular group took the least time to complete the course of training, their average time being 18 months as compared to 21 months for the paraplegics



Chart 5: Vocational Summary on Paraplegic Graduates

Level of Lesion	Cervical	D1 to D9	D10 to L5	Poliomyelitis
Employed by				
self at home (watch repair) .....	2	7	11	1
self — store owner (watch repair & sales) .....	0	7	8	5
jeweler (watch repair) .....	0	2	13	1
related industry .....	0	5	14	4
nonrelated areas .....	0	0	5	0
Unemployed .....	0	1	1	0
Hospitalised .....	0	0	1	0
Working hours				
1 - 5 per day .....	2	5	17	1
6 - 11 per day .....	0	16	34	10
<b><u>All levels of lesion</u></b>				
Time since graduation .....	6 yrs. 3 months			
Range .....	(1 - 11 yrs.)			
Training time .....	21 months			
Average age .....	35			
Range .....	(23 - 45 yrs.)			
Average 1956 earnings .....	\$4100.00			
(65 reporting)				
91% utilizing skills for which trained				

Chart 6: Vocational Summary on Tuberculous Graduates

Type of Lesion	Mild	Moderate Advanced	Far Advanced	Extra Pulmonary
Employed by				
self at home (watch repair) .....	1	0	1	0
self — store owner (watch repair & sales) .....	2	6	0	0
jeweler (watch repair) .....	0	17	4	5
related industry .....	2	13	4	0
nonrelated areas .....	0	2	2	0
Unemployed .....	0	0	0	0
Hospitalized .....	0	0	1	0
Working hours				
1 - 5 per day .....	1	0	1	0
6 - 11 per day .....	4	37	10	5
<u>All lesions</u>				
Time since graduation .....	4 yrs. 4 months			
Range .....	(1 - 11 yrs.)			
Training time .....	18 months			
Average age .....	37			
Range .....	(25 - 49 yrs.)			
Average 1956 earnings .....	\$4300.00			
93% utilizing skills for which trained				

and cardiacs. It should be noted that while they were students they began their training on a limited basis of less than 3 hours per day, and were gradually advanced to a full 6-hour day of training prior to graduation.

Fifty-five of the graduates are utilizing the skills for which they were trained. Eight of this group have their own jewelry stores, 26 are working in a jewelry store, 19 are working in related industry, including such jobs as electrical

assemblers, laboratory technicians, instrument assemblers, and camera repair. Several who are working in related industry report that they are also earning additional income from watch repair done at home. The average earnings of the 59 graduates in this group was \$4,300 per year (1956). Although the vast majority are veterans who are receiving a pension, this does not deter them from trying to take care of their families (90 per cent are married).

Chart 7: Vocational Summary on Cardiac Graduates

Type of Lesion	Rheumatic	Hypertensive	Coronary
Employed by			
self at home (watch repair) .....	0	0	0
self — store owner (watch repair & sales) .....	0	0	2
jeweler (watch repair) .....	5	0	0
related industry .....	4	3	3
nonrelated areas .....	4	0	0
Unemployed .....	0	0	0
Hospitalized .....	0	0	0
Working hours			
1 - 5 per day .....	0	0	0
6 - 11 per day .....	13	3	5
<u>All lesions</u>			
Time since graduation .....	6 yrs. 3 months		
Range .....	(1 - 11 yrs.)		
Training time .....	21 months		
Average age .....	40		
Range .....	(26 - 63 yrs.)		
Average 1956 earnings .....	\$4700.00		
81% utilizing skills for which trained			

#### Vocational Data on Cardiac Group

In the cardiac group, 14 are veterans and 7 are civilians. They are located in six states, with the majority being again in New York, New Jersey, and Connecticut. All of the cardiacs are working a full day. Two operate their own jewelry stores, 5 work as watch repairmen for jewelers, and 10 are working in related industry (instrument repair, mechanical assemblers, gyro assemblers, research technicians, and instrument lathe work).

The average age of the cardiac group is 40 years, which is slightly higher than that of the paraplegic (35) and tuberculous (37) groups. The annual income for the cardiac group is \$4,700 per year (1956). Again a number of those who reported working in related industry, as well as in nonrelated areas, have indicated that they were also doing watch repair at home in their spare time.

#### Discussion

It has always seemed to us that the greatest weakness of total rehabilitation has been the follow-up study to determine whether or not achievements attained by "team work" can be retained and utilized by the individual when he is on his own. Our present study indicates that this is so, at least for patients in the three

categories of disability reviewed, who have received training in watchmaking. Of particular interest is the low incidence of rehospitalization in the tuberculous and cardiac graduates. In the paraplegic group, the incidents of rehospitalization would seem to be rather high but a great many of them have been out of school from 6 to 11 years. Perhaps the large incidence of rehospitalization in paraplegic patients is related to their apparent indifference concerning routine medical care. This indifference contrasts sharply when compared to the cardiac and tuberculous graduates. This is borne out, in part, by the paraplegics' attitude toward standing and walking. While we never advocated "miles of walking for paraplegics," we did and still do recommend that every paraplegic attempt to learn to stand and walk if it is physically possible. The vast majority of the paraplegic graduates had been taught to stand and walk before they reached school. At school, facilities were available for standing and walking for students. They were told that, while it was advisable for them to stand and walk, it would not be a prerequisite for remaining in school. It is interesting to note that students who discontinued standing and walking while at school have never resumed it.

The earnings reported for all the graduates in this report compare very

favorably with nationally reported earnings for the nondisabled who have received a similar type of training.

The participation of many of the graduates in community affairs would seem to indicate that they are slightly more interested in such activities than the nondisabled. It would seem, then,

that from the economic, social, and community view point, these disabled have truly been "rehabilitated for living."

#### Reference

1. Lipton, B. H.; Hoberman, M., and Teschner, B.: Rehabilitation of the Severely Disabled. *J. Rehab.* 21:8 (Sept.-Oct.) 1955.

## IMPORTANT ANNOUNCEMENT

The Editorial Board of the *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION* has established a special subscription rate of \$5.00 per year to be granted to bonafide residents in physical medicine and other specialties in the United States, its territorial possessions, Mexico, Canada, United Kingdom and Europe. The following rules apply:

1. The subscription may be entered for a period not to exceed three years.
2. All orders for this special rate must be accompanied by a letter of verification from the director of the training program confirming the resident's status and the number of years remaining in the resident's training program.
3. This special rate is not applicable if less than one year of training remains to be completed in the applicant's residency program.
4. The subscription is not transferable and must be entered in the resident's name. It cannot be sent to a hospital, organization, institution, or a person other than the subscriber.

Those desiring to avail themselves of the special rate to residents should write to Archives of Physical Medicine and Rehabilitation, 30 N. Michigan Ave., Chicago 2.

# Physical Medicine and Rehabilitation in a Chronic Disease Hospital

Jerome S. Tobis, M.D.  
Milton Lowenthal, M.D.  
and  
Ira Belmont, Ph.D.  
New York City

● One of the major health problems in America today is care of the chronically ill, especially the elderly patient. Physical medicine and rehabilitation offers a major contribution to the care of such patients in chronic disease hospitals, nursing homes and old age homes. This report deals with the multiplicity of services that have been developed by the physical medicine and rehabilitation department in a 2,000 bed municipal chronic disease teaching hospital. Subjects discussed include ward patient care, sheltered workshop program, prosthetic clinic, occupational therapy program for a psychiatric service, hospital-wide activities of daily living program, education and research. Of particular interest is a statistical analysis of the services provided, the active sheltered workshop program, problems in the management of young adult patients in a chronic disease set-up, accident control, and the children's rehabilitation program. A discussion of the problems encountered may assist others in dealing with patients in similar or analogous medical settings.

It is the purpose of this paper to present the activities of the department of physical medicine and rehabilitation at Bird S. Coler Hospital and to highlight some principles of care which may be applied in any setting — home, office, or hospital. Bird S. Coler Hospital is a new, 2,000-bed, municipal chronic disease hospital which was opened in 1952. It is a part of the New York Medical College, Metropolitan Medical Center. It is a teaching hospital staffed by the faculty of the medical school. The entire spectrum of chronic disease, with the exception of tuberculosis, is represented in the hospital population.

## Some Principles of Care

Some of the principles of care developed out of our teaching experience with medical students in all four academic years and with graduate physicians are as follows:

1. *Re-evaluation.* It is necessary to re-evaluate for students the nature of chronic disease. We stress that acute and chronic disease are not two discrete unrelated entities; that acute disease may lead to chronic disease as in poliomyelitis; and that chronic disease may have periods of acute exacerbation as in multiple sclerosis or rheumatoid arthritis. We teach that acute and chronic disease are fundamentally the same process in

terms of inflammation, degeneration, tumor, and necrosis. Both affect tissue and function alteration, differing, however, in rate, magnitude, and direction. Because of the dramatic or rapid changes in these dimensions in acute disease, medical interest has tended to center upon the acutely ill with the implication that the chronically ill are essentially custodial. In teaching the management of the chronically ill, we focus our attention on the disease process as an entity which has both chronic and acute characteristics.

For example, a 34-year-old unmarried woman who had had poliomyelitis at age 9 resulting in paresis of both lower extremities was admitted to our service. She had been rehabilitated to walk with braces and crutches, and was regularly employed until the age of 25 when she developed a hemorrhagic diathesis, diagnosed as nonthrombocytopenic purpura. Repeated hospitalizations for work-up and for transfusions were required and she gradually became wheelchair-bound. She was transferred from the medical service of a general hospital because of the obvious need for long-term rehabilitation management. Although this patient possesses a chronic medical problem with periods of acute exacerbation, she has been managed on our service because of her over-all needs. Her physical status had made her an apprehensive

Read at the Thirty-fifth Annual Session of the American Congress of Physical Medicine and Rehabilitation, Los Angeles, September 11, 1957.

Professor and Director, Department of Physical Medicine and Rehabilitation, New York Medical College, Metropolitan Medical Center; Director, Department of Physical Medicine and Rehabilitation, Bird S. Coler Hospital.

Associate Professor, Department of Physical Medicine and Rehabilitation, New York Medical College; Chief of Clinical Services, Department of Physical Medicine and Rehabilitation at Flower and Fifth Avenue Hospitals, Bird S. Coler Hospital and Metropolitan Hospital.

Associate, Department of Physical Medicine and Rehabilitation, New York Medical College and Bird S. Coler Hospital.



anxious girl, fearful lest a required transfusion be withheld. This may have accounted in part for the enormous number of transfusions (500) she had received over the years. Since her admission, mild bleeding has persisted, with one severe episode requiring transfer for a brief period to the medical service for control and transfusion. However, the shifting of the focus of care from emphasis on the acute hematological problem to the total rehabilitation planning has enabled this patient to resume a physical activity program. There has been a definite reduction in her anxiety and depression, with a concomitant increased interest in her rehabilitation goals. Further, we believe that the continuity of care provided by our service in consultation with internal medicine has reduced the transfusions in this case to the minimum actually necessary with no deleterious effect upon the patient. This case demonstrates how a patient having a chronic disease with acute manifestations of another disease may be managed on a rehabilitation program.

2. *Increment in Function.* A second concept of rehabilitation care concerns the nature of increment in function. Effective medical care of the severely disabled chronically ill entails providing them with a therapeutic regimen which may result in only a small increase in function. Often this functional increment may require considerable time and therapeutic effort. This concept of increment is based on the fact that the severely disabled have markedly restricted capacities. A small additional disability may transform a relatively independent patient to severe dependency. On the other hand, a small augmentation in function may permit a significant increase in independence.

For example, a 65-year-old man was admitted to our service with extensive weakness of both lower extremities resulting from poliomyelitis in childhood. He had functioned quite efficiently, ambulating with the use of two canes, and had been employed for many years. Prior to his admission he developed acute gout with involvement of the left wrist. This minor additional disability of the wrist resulted in his becoming completely

wheelchair-bound because of his inability to utilize canes. Inversely, directing therapy to this minor disability should result in a major return of function.

On the other hand, many patients may require an extensive therapeutic program for a small improvement in function which, however, is nonetheless invaluable to the patient's well being. For example, a 55-year-old bedridden woman had fixation of the elbows and shoulders so that she was incapable of self-feeding. In addition, since there was marked diminution of motor power following resection of the elbow joint, a special device was built which permitted her to learn limited self-feeding. Thus, extensive therapeutic resources—surgery, prosthetic device, and physical therapy—were employed to accomplish a relatively small increment of function. Yet its clinical effect upon the patient was considerable.

3. *The Common Denominator in Physical Medicine and Rehabilitation.* A third principle which is developed for the students is the presentation of the common denominator which relates the diverse clinical entities which our field treats. For example, students who are oriented to well-organized disciplines, such as surgery or ophthalmology, find difficulty in formulating the integral nature of the specialty of physical medicine and rehabilitation. We stress that physical medicine and rehabilitation essentially treats patients with chronic disease who present musculoskeletal disability. Such disability may result from involvement of any system. It is because of the nonspecific nature of the disabilities treated that physical medicine and rehabilitation primarily employs symptomatic therapy. For example, no matter what the etiology, the treatment of a flail lower extremity is essentially the same. By the same token, no matter what the etiology, the contracture of an elbow will receive an appropriate regimen of care. Thus, the objectives of physical medicine and rehabilitation are achieved by symptomatic therapy in conjunction with appropriate specific medical care. These considerations provide the basis upon which our clinical program has been developed.

Our department of physical medicine and rehabilitation is directly responsible for a 284-bed service (200 adults and 84 children), 70 per cent of which are occupied by patients suffering from neurological disorders. Our adult patients are predominantly elderly, of the lowest socioeconomic status, and frequently devoid of any community or family ties. They are severely disabled with multiple handicaps and frequently have a history of prolonged hospitalization prior to admission. Care for these patients is provided in two clinical areas: (1) physical medicine and rehabilitation wards, and (2) physical medicine and rehabilitation care for patients on other wards.

#### Physical Medicine and Rehabilitation Ward Program

The department has ward services for patients whose primary medical problem entails the loss of musculoskeletal or neuromuscular function and who can benefit from a concerted rehabilitation effort. The existence of a rehabilitation ward under the medical supervision of a physiatrist permits a continuously coordinated therapeutic regimen. For example, the training learned in a physical therapy treatment room can be more effectively transferred to ward activities. In addition there is strong psychological supportive care of the patient. Thus rehabilitation ward care provides continuity of medical care under the physiatrist when it is most valuable and prevents the fragmentation of total care for patients who might otherwise be treated by several medical services.

For example, a 52-year-old unmarried woman with muscular dystrophy (Landouzy-Déjérine type) who had never received rehabilitation care was admitted with the goal of increased independence in self-care and limited ambulation. She was extremely disturbed, agitated, and mistrustful. Her management during the first four to six weeks of hospitalization was a severe trial to the entire rehabilitation staff. Although we were tempted on several occasions to transfer her to a psychiatric hospital, she was maintained on the rehabilitation ward and now is

extremely cooperative in her rehabilitation program. Through the total planning available on the rehabilitation ward and with one doctor, the physiatrist, responsible for her total care in consultation with the psychiatrist, this patient was managed on a nonpsychiatric service. Transfer to a psychiatric setting would probably have terminated her rehabilitation.

#### Physical Medicine and Rehabilitation Care for Patients on Other Wards

The department provides the traditional consultative, therapeutic, and prosthetic services. In addition it has an extensive self-care program, a large sheltered workshop, and a group work program. These clinical activities are used as a vehicle for education and communication to other medical services in the hospital and serve to inform the physicians in the medical center of the functions and the availability of physical medicine and rehabilitation. The effectiveness of the off-ward program is suggested by the following data:

*Increase in Service.* In 1953 our department treated 477 hospitalized patients. In 1956 we provided care to 1,676 patients. This sharp increase of service reflects in part the recognition that other medical services in the hospital have given to the role of a physical medicine and rehabilitation department in a chronic disease hospital. We believe that if personnel limitations can be overcome, a physical medicine and rehabilitation department should provide care to almost the entire population of a chronic disease facility.

*Self-Care Program for the Hospital.* During the first three years that the hospital was open, nursing care was provided in the traditional manner. The patient received maximum assistance on the ward and often remained a passive subject in the daily ward routine. In addition, the number of available personnel — nurses and aides — was markedly limited.

In order to teach the principles of rehabilitation care throughout the hospital and to continue the benefits of treatment for patients who left our

wards, we developed, in cooperation with the nursing service, a hospital-wide self-care program. One nurse was assigned to our department and trained in rehabilitation nursing. This nurse upon completion of her training became the coordinator of a team including a physical therapist and an occupational therapist. The group functions under the direction of a physiatrist and has the responsibility of: (1) teaching the principles of rehabilitation care to ward personnel throughout the hospital, (2) evaluating the functional capacities of patients on all wards, and (3) training of patients in technics for developing greater independence.

Most of the teaching of personnel and evaluation of patients is performed directly on the wards. This program has served as a screening device for patients to be admitted to the rehabilitation wards. The effect on patient management of this change in nursing practice has been dramatic. The number of bedridden patients has decreased sharply, with a consequent decrease in the need for bedside nursing care. This program has thereby helped to improve the general level of nursing care for those who specifically require it.

*Sheltered Workshops.* The department has developed a sheltered workshop program for in-patients. This activity is a medically directed program under the supervision of a physiatrist. All patients are evaluated in terms of diagnosis, disability, coordination, range of motion, motor power, prognosis, and psychological capacity. The patients are assigned jobs in the workshops appropriate to their skills. Periodic re-evaluations are held to determine appropriateness of job assignment. Thus, these shops are geared to provide work therapy for patients with severe disability.

The workshops occupy 7,500 square feet divided into three major areas. There is a sewing shop with 48 commercial needle trades machines, a printing and machine shop, and an assembly and packaging shop. In 1956, 191 patients ranging in age from 16 to 91, with a median age of 63 years, participated in the sheltered workshop program and re-

ceived remuneration for their efforts. The work is obtained from two major sources: subcontracts from commercial firms and the hospital itself. The activity is operated by regular staff personnel.

It must be emphasized that all the patients are severely disabled, many are elderly, and few will ever be able to obtain employment in the community. Many complicated tasks are accomplished by having the tasks broken down into several simple operations. In addition, special adaptive devices have been developed for the work. For example, a hemiplegic may perform a two-handed operation by the use of an appropriate jig.

This program has enabled the severely disabled patient to perform a socially useful function for which he received remuneration and a sense of self-esteem while maintaining physical fitness. The change in attitude of the patient toward his rehabilitation program almost invariably leads to greater cooperation and better participation in his physical rehabilitation.

*Group Work.* The department has a group work program which utilizes recreational activities as a therapeutic modality. It was initially developed in our children's ward for 40 severely disabled cerebral palsied patients. It was highly successful as a therapeutic modality and was expanded to include the adult wards. Additional group work personnel was made available by students from the New York School of Social Work.

The group work program involves the patients in physical activities which exploit the training provided by physical therapist, occupational therapist, and speech therapist. In addition, the group worker works closely with the psychologist, the social case worker, and (in the case of children) the teacher. For example, an 18-year-old paraplegic on our service who resisted participation in physical therapy, and who remained aloof from other patients, was involved by the group worker in a recreation program. He was thus led by contact with other patients to accept active therapy. Other responsibilities include

patient and family discussion groups and recreational programs in the ward and dining room.

The participation of group workers has enabled us to explore the area of patient interrelationships and the influence of ward life on rehabilitation care. Many of the undercurrents of ward life for chronically ill patients, with their personal antagonisms, have been revealed and very often resolved. Many behavior problems which had existed previously have been reduced or eliminated. In an acute disease hospital these aspects of group living might be overlooked because of the short period of hospitalization. In a chronic disease setting, however, these aspects cannot be disregarded without a deleterious effect upon the patients.

#### Summary

We have presented several considerations in the treatment of chronically ill patients and have described some aspects of the physical medicine and rehabilitation program at Bird S. Coler Hospital. We teach that:

1. Physical medicine and rehabilitation is concerned with patients with musculoskeletal disability.
2. Acute and chronic disease must be regarded as two aspects of one process.
3. Physical medicine and rehabilitation observes increments of disability and seeks to provide increments of function.
4. Physical medicine and rehabilitation is essentially symptomatic therapy.

Traditionally, chronically ill patients are treated in acute and chronic disease hospitals, nursing homes, old-age homes, and in their own homes. It is significant

to observe that settings such as a private home and an old-age home are social settings which have been transformed because of need, and have become medical settings. On the other hand, those responsible for the administration of medical settings such as chronic disease hospitals have begun to recognize their responsibilities to meet the social needs of the chronically ill patient. This trend reflects the recognition of the dual character of chronic disease, namely, its social and biological nature. Long-term illness has catastrophic consequences upon the patient and his family, economically, psychologically, and socially. Because of these considerations additional responsibility is placed upon the physiatrist to extend his prescription beyond the traditional medical areas.

It is our hope that this review of our program in the light of these considerations may be of help to others in a better understanding of the problems of the care of the chronically ill. We believe that these principles apply in any setting, whether the patient is in the hospital, home, or nursing home.

#### References

1. Ferderber, M. B.: Aspects of Rehabilitation of the Aged. *J.A.M.A.* 162:1036 (Nov. 10) 1956.
2. Knudson, A. B. C.: Rehabilitation of the Chronically Ill in the Veterans Administration. *J.A.M.A.* 162:1035 (Nov. 10) 1956.
3. Notkin, H.: Chronic Illness—A Survey. *New York State J. Med.* 56:736 (Mar. 1) 1956.
4. Brightman, I. J.; Lyons, E. C., and Gramm, E. R.: Proprietary Nursing and Convalescent Homes. Their Role in Providing Care for the Chronically Ill. *New York State J. Med.* 55:1713 (June 15) 1955.
5. Hilleboe, H. E., and others: Pilot Program for Rehabilitation of Disabled Welfare Recipients, New York State Department of Health, 1956.



# Physical Treatment Employed in the Rehabilitation of a Patient with Morquio's Disease

Roy T. McReynolds, M.D.  
and  
O. Leonard Huddleston, M.D., Ph.D.  
Santa Monica, Calif.

● A seven-year-old boy with Morquio's disease was treated at an acute hospital for correction of progressive deformities of his trunk. Complete flaccid paralysis developed at T 11 following a spinal fusion. A partial laminectomy resulted in partial return of sensory and motor function. Bilateral fractures of the femora occurred three months later when the father attempted to teach the child to walk. During the course of treatment of the fractures, trophic ulcers developed on the back, knees, and ankles. The bones eventually healed and the patient was sent to a rehabilitation center for appropriate physical treatment. The ulcers were healed by using a heat cradle and placing the patient in a sawdust bed. Severe contractures of the hips and knees were present, in addition to the paresis and paralysis of the muscles of the lower extremities. Physical treatment in the form of neuromuscular re-education, hydrotherapy, mobilization therapy, gait training, and self-care training over a period of eleven months enabled the patient to learn to walk with the aid of crutches and long-leg braces. The vital capacity of the patient doubled by the use of breathing exercises and mobilization therapy.

Morquio's disease is a rare dystrophy involving the bones and cartilage of the entire skeleton except the skull.<sup>1</sup> It was first described as an independent disease by Morquio in 1929,<sup>2</sup> and shortly afterwards by James F. Brailsford.<sup>3</sup> However, previously reported cases, called "atypical achondroplasia," "rachitic achondroplasia," and "familial rickets" by other observers, were most probably examples of Morquio's disease. It has been suggested by Shelling<sup>4</sup> that the condition be designated as "osteochondrodystrophia deformans."

## Etiology and Incidence

It has been stated by Shelling that all cases reported had been in white children. But in 1951 Feldman and Davenport<sup>5</sup> reported four cases, two in children of pure African stock and two of Europeo-African descent. In 1954 Townsend-Coles<sup>6</sup> reported seven cases in natives of Sudan.

Shelling<sup>4</sup> is of the opinion that the disease is hereditary and that a dominant Mendelian factor is involved. On the other hand, Fairbanks<sup>7</sup> feels there is no hereditary factor but that the disease is familial. He suggests the ultimate possibility is that it will be included in the group of lipoidosis. More than one mem-

ber of the family is involved in one-third of the cases. The majority of writers believe that the disease is inherited as a recessive trait.<sup>3, 4, 6, 8</sup> In many cases consanguinity of the parents has been reported.<sup>2</sup> Sporadic cases do occur and males are affected slightly more than females.

## Course of the Disease

The disease is usually first noted when the victim is about one year of age—when the infant begins to walk. Sometimes a curvature of the spine is noted when the infant is 3 or 4 months old. Other times the disease first appears later in life, when the patient is 3 to 5 years of age. The condition progresses gradually causing marked deformities of the chest and extremities resembling severe untreated rickets. The thorax is shortened in the vertical axis, narrowed transversely, the sternum protrudes and the anteroposterior diameter is increased.

The vertebral column presents a marked kyphosis associated with a varying degree of scoliosis. The appendicular joints are enlarged and mal-shaped and there is considerable flaccidity of the skeletal muscles. There is usually a valgus deformity of the knees and a varus deformity of the hips which results in a "bilateral Trendelenburg gait."

## Differential Diagnosis

*Rickets.* — Morquio's disease should be differentiated from rickets which it closely resembles. The x-ray findings re-

Read at the Thirty-fifth Annual Session of the American Congress of Physical Medicine and Rehabilitation, Los Angeles, September 12, 1957.

Staff Physician, California Rehabilitation Center, Medical Director, California Rehabilitation Center; Clinical Professor of Physical Medicine and Rehabilitation, University of Southern California School of Medicine, Los Angeles.

veal the skull to be relatively normal throughout the disease. The spine shows kyphosis and scoliosis with flattening of the bodies and pointed anterior surfaces giving the "shoe slipper" appearance. The intervertebral spaces are widened and may be as deep as the vertebral body. The compression of the cervical and thoracic areas result in shortening of the neck and an anterior projection of the sternum. The extremities reveal normal density. The epiphyses have multiple ossific areas, the diaphyses are irregular, and the joint spaces are widened. The nuclei of the carpal and tarsal bones show delay in development and marked irregularity in outline. In later stages of growth, the hip joints show considerable destruction and the knees reveal an irregular, knock-knee deformity without bowing of the shafts as is seen in rickets. Thus it can be seen that the x-ray findings are quite dissimilar to those found in rickets. The blood calcium and phosphorous are normal in Morquio's disease and the skeletal changes do not respond to vitamin D therapy. These facts enable one to separate the two diseases.

*Chondrodystrophy.*—In this disease the head and trunk are large while the extremities are relatively short. In Morquio's disease the head is normal in size, the trunk is short, and the extremities are relatively long. Instances have been encountered where the differentiation between these two was not clear cut.

*Gargoylism.*—This resembles Morquio's disease but is differentiated by the characteristic findings of mental retardation, cloudy cornea, defective vision, a prominent abdomen, enlargement of the spleen and liver, and short extremities.<sup>6</sup>

#### Course and Progress

Einhorn<sup>9</sup> states there are two distinct phases of Morquio's disease—the first consists primarily of the bony changes and the second is attended by the development of neurological features. With the appearance of the second phase, the entire course of the disease becomes altered and the child becomes bedridden and helpless. Toma<sup>8</sup> states that the prognosis is not favorable for longevity and the orthopedic problems of dislocated

hips and joint deformities become prominent in the treatment regime.

Brailsford<sup>1</sup> made a follow-up report on one of the first cases he reported. When the patient was three years of age he was given thyroid and antirachitic treatment without benefit. He was also given a back support for his kyphosis. From the age of 10 he steadily and progressively declined. He did not grow and at age 12 his face became grotesque. At the age of 14 he died, after being bedridden for nearly a year. He was only 2 feet, 10 inches tall and weighed 38 pounds.

The autopsy findings of a case of osteochondrodystrophia deformans were reported by Einhorn.<sup>9</sup> The report was on a 10 year old boy who had been paraplegic since the age of 4 years. The important findings were: (1) deformity of the heart from compression, (2) massive atelectasis of the lungs, (3) compression of the upper cervical region, (4) atrophy of striated skeletal muscle, (5) degeneration of articular cartilage, and (6) atrophy of the articular and subchondral bone.

In some cases, the process, instead of progressing inevitably downhill, may cease, but it is not known definitely if such victims survive beyond young adulthood.

There is no known specific treatment. Toma<sup>8</sup> advises exercises to increase tonicity of muscles and occupational therapy to prevent deformities of the hands.

#### Case Report

A boy, of Mexican descent age 7 years, was admitted to the California Rehabilitation Center on March 22, 1956 for physical treatment and physical rehabilitation. The presenting symptoms were multiple decubitus ulcers and paraplegia.

*Family History.*—The father and mother were living and well. The parents are not blood relatives and there is no history of Morquio's disease in the family.

*Past History.*—The patient was of normal birth—full term without complications—and the fourth of six children. He was breast fed until one year of age. At the age of 3 months some twisting of the spine was noted. Follow-

ing this, enlargement of the ankles, knees, elbows and wrists was noted. He was able to sit at 9 months and walked at about 15 months. He began to speak at 2½ years. The deformity of the spine increased and was accompanied by deformity of the chest wall.

A bone survey was done in December, 1954 (when the patient was 6 years old), which showed marked kyphoscoliosis of the thoracic and upper lumbar spine. There was flattening of all the vertebral bodies with pointing of the anterior surfaces and widening of the intervertebral spaces. The epiphyseal ossification centers of the head of the femora were defective. The bone maturation in the hands was that of a male under two years of age. (Figs. 1, 2 and 3.)



Fig. 1—Note the abnormal epiphyses, lack of development of the carpal bones and cuboid shape of metacarpal and phalangeal joints. (Patient's age, 7 years)

A spinal fusion was performed September 14, 1955 following which a complete flaccid paralysis developed at the eleventh thoracic vertebra. On September 24, 1955 there was slight return of sensation in the left leg and on October 1, a slight flicker of motion was observed in the left hip. On December 7, 1955 the spinal cord was explored. It was found to show no pulsation below

the eleventh thoracic vertebra but there was no definite point of constriction or impingement of bone on the cord. It was the opinion of the neurosurgeons that the pressure was due to the acute angulation of the cord by the kyphoscoliosis, plus the fusion directly over the angulated area. The cord was decompressed and pulsations were resumed. Nineteen days after surgery it was noted that the patient was able to move both hips and that sensation was returning. He then continued to show improvement, both on muscle power and sensation.

Bilateral fractures of the femora occurred in February, 1956, while the father was attempting to teach the patient to walk. During the course of treatment of the fractures, trophic ulcers de-



Fig. 2—Marked kyphosis shown with the typical narrow vertebral bodies and wide intervertebral spaces.

veloped on the back, knees and ankles. When the fractures were healed the patient was transferred to the rehabilitation center for appropriate physical treatment.

*Physical Examination.* — The general appearance was that of an abnormally developed male child of Mexican de-



Fig. 3 — The abnormalities of the epiphyses are shown with normal bone construction in the metaphyses of the lower extremities.

scent, not appearing acutely ill. The head was symmetric, measuring 49 cm. in circumference. Other measurements were finger to finger, 94 cm.; vertex to pubis, 60 cm.; pubis to feet, 45 cm.

The neck appeared abnormally short, the chin resting on a projection of the upper anterior chest. The chest showed extensive abnormality in shape, being quite asymmetric with concavities of both sides, right more than left. There was a marked increase of the anteroposterior diameter. The skin revealed two decubitus ulcers of the left ankle and one of the right knee.

**Musculoskeletal System.**—Flexion contracture deformities of the hip and knees were noted in both lower extremities accompanied by marked atrophy of the right thigh and leg. The fingers and toes appeared abnormally short.

The wrists, elbows, knees and ankles were enlarged and not normal in shape. The back revealed a marked kyphoscoliosis and a large postoperative scar over the dorsal spine.

**Neurological Examination.**—Neurological examination of the cranial nerves revealed no abnormalities. The tendon reflexes of the upper extremities were 2+, while those over both lower extremities were absent. The abdominal reflexes were questionable and there was no response to any of the Babinski group of reactions. A complete sensory loss was present over both lower extremities.

**Muscle Check.**—A muscle check showed fairly symmetric changes: neck flexors and all trunk muscles were poor; the hip muscles showed only a trace of function with the exception of good flexors and sartorii; the knee flexors and extensors showed only trace muscle power; there was complete paralysis of the leg and foot muscles.

**Other Findings.**—Vital capacity measured 450 cc. in the sitting position (normal, 1000). Heart, lungs, abdomen, and genitalia appeared normal; and no abnormalities were noted in an eye, ear, nose, and throat examination.

#### Treatment and Progress

The ulcers were healed by using a heat cradle and placing the patient in a sawdust bed. Physical treatment in the form of neuromuscular re-education, gait training, self-care training, and mobilization therapy over a period of eleven months enabled the patient to learn to walk with the aid of crutches and long leg braces. He was also put on breathing exercises and mobilization therapy to increase his breathing capacity.

A muscle recheck in May, 1957 revealed an increase in power of the neck flexors, a marked increase in the trunk flexors and rotators, and considerable increase in the trunk extensors and quadratus lumbori. The hip muscles showed slight improvement in most groups; the thighs showed considerable improvement of the quadriceps and, to a lesser extent, the hamstrings. Complete paralysis of the muscles below the knees persisted. The vital capacity was increased to 825 cc. (sitting).



Sensation has not returned other than that the patient can identify heavy pressure over thighs and legs and knows when his lower extremities are being moved.

The patient is now taking care of himself; activities of daily living are normal; he handles his wheelchair alone; he ambulates unassisted with long leg braces and crutches and is happy, cheerful and well adjusted. He has shown a decided personality change during the course of rehabilitation; he is now very active, energetic, happy, and highly social (extrovert), whereas on admission he was depressed, seclusive, shy, retiring, noncommunicative, frightened, retarded, and hypoaactive.

#### Summary

A case of Morquio's disease complicated by paraplegia and decubitus ulcers is presented. A program of physical treatment was instituted which increased vital capacity from 42 to 82 per cent of normal and permitted a bedridden child to ambulate with long leg braces and crutches and become sufficiently independent to cheerfully carry on the activities of daily living.

#### References

1. Brailsford, J. F.: Chondro-osteo-dystrophy. *J. Bone & Joint Surg.* 34-B:53 (Feb.) 1952.
2. Morquio, L.: Sur une forme de dystrophie osseuse familiale. *Arch. de med. d. enf.* 32:129 (Mar.) 1929.
3. Brailsford, J. F.: Chondro-osteo-dystrophy. *Am. J. Surg.* 7:404 (Sept.) 1929.
4. Shelling, D. H.: Osteochondrodystrophia Deformans: Morquio's Disease, in Brenemann's Practice of Pediatrics, vol. 4, Hagerstown, Md., W. F. Prior Company, Inc., 1957, chap. 29.
5. Feldman, N., and Davenport, M. E.: Osteochondrodystrophia Deformans (Morquio-Brailsford Disease). *Arch. Dis. Childhood* 26:279 (Aug.) 1951.
6. Townsend-Coles, W. F.: Report of 7 Cases of Chondro-osteo-dystrophy (Morquio's Disease). *Arch. Dis. Childhood* 29:7 (Feb.) 1954.
7. Fairbanks, H. A. T.: Chondro-osteo-dystrophy. *J. Bone & Joint Surg.* 31-B:291 (May) 1949.
8. Toma, J. J.: Symposium on Orthopedic Surgery: True Chondro-osteo-dystrophy (Morquio's Disease). *S. Clin. North America* 33:1765 (Dec.) 1953.
9. Einhorn, N. H.; Moore, J. R.; and Rowntree, L. G.: Osteochondrodystrophia Deformans (Morquio's Disease): Observations at an Autopsy in One Case. *Am. J. Dis. Child.* 72:536 (Nov.) 1946.

*Make your plans to be in . . .*

**PHILADELPHIA for the ANNUAL SESSION,  
AUGUST 24-29, 1958**

**BY PATRONIZING**

*Our Advertisers*

**YOU HELP SUPPORT**

*Your Journal!*

# Social Security for the Disabled

Arthur B. Price, M.D.  
Baltimore

• Determination of "disability" under the social security law provides for payments before normal retirement age, and it protects against loss of retirement and survivor benefits because of reduced earnings. An integral part of the disability program is the referral of the disabled for vocational rehabilitation services.

In 1954, the social security law first took into account the problem of the financial insecurity faced by the disabled person. Until that year, a worker reaching age 65 whose working lifetime had been cut short by disability might find that the gap in his social security earnings record meant that he could draw only minimum old-age insurance benefits, or that his payments and those of his family had been lost entirely.

To prevent the complete loss or significant reduction of old-age and survivors insurance on account of long-term disability, Congress, in 1954, provided for the "wage-freeze" — roughly analogous to a waiver of premium in an insurance policy. Further amendments to the law, in 1956, provided for the payment of disability insurance benefits to totally disabled workers aged 50 or over, and for the continuation of a disabled child's payments past the age of 18.

While the primary function of the Bureau of Old-Age and Survivors Insurance in the disability field is the protection of the worker against loss of income or loss of benefit rights, the Bureau has, as well, a real interest in the rehabilitation of the disabled. One of the most significant features of the administration of the disability provisions of old-age and survivors insurance is the prompt referral of every applicant to his state vocational rehabilitation agency. The vocational rehabilitation agencies will thus be in a position to recognize these disabled persons early and to provide many of them with appropriate physical restoration and vocational services which may enable them to return to work. In order to further the rehabilitation objective, the law provides for the suspension of disability payments if the person refuses without good cause to accept available rehabilitation services

under a state plan. However, if he does undergo rehabilitation and becomes able to work again, he may continue to receive benefits for a work trial period, up to one year, while working pursuant to an approved rehabilitation plan.

## Disability Provisions of O.A.S.I.

The disability provisions of old-age and survivors insurance affect the patients in hospitals and rehabilitation centers in three ways:

**Disability Insurance Benefits.** First, they may be eligible for disability insurance benefits — monthly social security benefits beginning in July, 1957 to disabled insured workers aged 50 and over. These payments are converted to retirement benefits when the disabled person reaches 65. Benefits are not payable to his dependents until he dies or reaches retirement age. If he is receiving another federal disability payment or a federal or state workmen's compensation benefit for any month, his disability insurance benefit is reduced by the amount of such payment. However, such reduction is not made for compensation paid him by the Veterans Administration on account of his service-connected disability.

**Childhood Disability.** Secondly, the patient may be entitled to childhood disability benefits — monthly payments to dependent children of aged or deceased insured workers. These payments are made to children whose disability began before age 18, and the payments continue, regardless of age, as long as the child is disabled.

**Disability Freeze.** Finally, under the "disability freeze" provisions of the 1954 amendments a disabled person can protect his social security account while he is unable to work. By "freezing" his social security account, he prevents the loss of future benefits for himself and his

Chief Medical Consultant for the Division of Disability Operations, Bureau of Old-Age and Survivors Insurance, U. S. Department of Health, Education, and Welfare.

family. For an individual to become entitled to disability or retirement insurance benefits, or for his family to become entitled to monthly payments in case of his death, he must meet a minimum work requirement under social security. The amount of the benefit is then calculated from his average monthly earnings in work covered by social security. The "freeze" preserves a disabled worker's rights and permits his period of disability to be excluded in determining the amount of his benefit.

#### Determination of Disability

To qualify for "disability" the worker must have a fairly long, as well as recent, work history up to the time he became disabled. It must be shown that he has a physical or mental impairment that is so severe it keeps him from engaging in any substantial gainful activity—a medically determinable impairment existing for more than six months and is expected to last indefinitely or end in death.

*State Rehabilitation Agencies.* Determinations as to "disability" are made by professional members of an agency of the state in which the applicant resides, under agreements between the states and federal government. In most states, this is the vocational rehabilitation agency. In the states of New York, North Carolina, Oklahoma, and Washington the contracting agencies are the departments of public welfare. In a few states, determinations of blindness are made by special agencies. The states are reimbursed for the administrative costs of making disability determinations. On the professional team in the state agency at least one member is a doctor of medicine. The team reviews and evaluates all medical evidence assembled in the file, as well as such nonmedical factors as age, education, and occupational experience.

*The Medical Advisory Committee.* Certain guides worked out at the federal level with the advice of a national Medical Advisory Committee are used in evaluating the disability. The Committee, composed of well-qualified representatives of the medical and related professions, gives advice and guidance to the Social Security Administration on the medical aspects of disability. The guides

are not rigidly or automatically applied. The final determination is based on all available facts of the individual's impairment and vocational history.

Insofar as possible, the disability determination process is geared to produce facts about the person's impairment and residual capacities that are also useful in identifying the kinds of services needed for rehabilitation. Any services provided are, of course, financed under the regular federal and state appropriations for the vocational rehabilitation program.

*Criteria and Requirements.* In determining whether an individual's impairment makes him unable to engage in any substantial gainful activity, primary consideration is given to the severity of his impairment. Consideration is also given to such other factors as the individual's education, training, and work experience. It must be established by medical evidence and, where necessary, by appropriate medical tests that the applicant's impairment results in such a lack of ability to perform significant functions—such as moving about, handling objects, hearing or speaking, or, in a case of mental impairment, reasoning or understanding—that he cannot, with his training, education, and work experience, engage in any kind of substantial gainful activity. Thus, a person who has been advised to give up his usual work in order to make his medical treatment more effective, or one who finds he is no longer able to meet the physical and mental demands of his regular job, may not necessarily be disabled as defined by the *Old-Age and Survivors Insurance Statute*. This might be because the impairment, although disabling for the person's usual occupation, cannot be considered disabling for all substantial gainful activity.

For purposes of the disability freeze, the law provides a special definition of blindness: central visual acuity of 5/200 or less in the better eye with a correcting lens. A person who meets the statutory definition of blindness is disabled for purposes of the freeze, whether or not he is capable of gainful activity.

Under the law, an impairment must also be one which is expected to continue

for a long and indefinite period or to result in death. Thus, for example, an individual who suffers a fracture that has prevented him from working for an extended period of time will not be considered under a disability if his recovery can be expected in the foreseeable future. Impairments which are remediable do not meet this definition of disability. If, with reasonable effort and safety, the impairment could be diminished to the extent that it would no longer prevent him from engaging in any substantial gainful activity, the person is considered not to be under a disability.

In addition, at least six months must elapse between the onset of disability and the first month of disability benefits. By the end of six months, most temporary ailments or active conditions are cured or stabilized to the point where the severity of the permanent residual can be assessed.

#### Application for Disability Benefits

Applications for disability benefits or for the "freeze" are taken by Social Security Administration district offices all over the nation. These offices give the person information about his rights and obligations and help him to file his application and to secure any proofs and documents he may need to support the application. They do not, however, make any evaluation of his disability. The claimant is given one or more copies of a medical report form which he is instructed to take or mail to his physician and to any clinic, hospital, institution, or agency where he has received treatment. The completed forms are mailed by the reporting physician or institution to the social security district office or to a designated state agency.

The medical report form, which is patterned after the forms used by private insurance companies, is furnished for the convenience of the physician. On it, the physician is asked to supply essential information relating to pertinent history, symptomatology, clinical findings, and so forth. In other words, all the findings which serve as the basis for the diagnosis and prognosis must be included. If he wishes, a physician may give the re-

quested information on any other form or in a narrative statement, using the medical report form as a guide in making out his report. Any information a doctor gives is, of course, treated as confidential, and procedures have been set up to safeguard the highly confidential nature of all medical and related reports.

The medical report based upon an existing medical record or upon a current examination will ordinarily be sufficient to establish the degree of severity of the impairment. Reporting physicians are not asked to decide whether the applicant is under a disability. Their responsibility, instead, is to give the state agency medical facts and findings sufficient for its physician to reach a conclusion as to diagnosis and the severity of the impairment.

Where the initial report fails to supply enough clinical findings to establish the severity of the impairment, the physician in the state agency may write directly to the claimant's physician for additional information. This approach has been adopted to preserve and strengthen the doctor-patient relationship. If the necessary information cannot be provided by the attending physician without a further examination, the claimant will be informed and asked to arrange for such an examination. Since the law places upon the claimant the responsibility for furnishing supporting evidence, the claimant is responsible for paying any basic costs involved. However, a medical examination at the expense of the Government may be authorized where, in the judgment of the reviewing physician in the state agency, verification of certain facts is necessary in order to insure against an improper award.

#### Applications Considered to Date

Of more than 1,025,000 applications received since January 1, 1955, over 730,000 have been processed to completion. A little more than 392,000 of these have been allowed. Nearly one fifth of all denials are not on insufficiency of medical grounds, but because of the failure of applicants to satisfy the work requirements in the law, or for other technical reasons. The others have been



denied, largely because their conditions were not so severe at the time they stopped work, and thereafter, as to prevent substantial gainful activity. Last August more than 100,000 severely disabled people received their first social security disability insurance checks. About 250,000 disabled workers are expected to become eligible for disability insurance benefits in the first year of benefit payments.

The social security district office servicing the area of the hospital or institution can furnish general information and literature regarding the disability provisions of the social security law and accept applications from, or on behalf of, a dis-

abled person. The local social security office is listed in the telephone directory under "United States Government; Department of Health, Education, and Welfare; Social Security Administration."

#### Summary

A determination of "disability" under the social security law provides for payments before normal retirement age, and it protects against loss of retirement and survivor benefits because of reduced earnings. An integral part of the disability program is the referral of the disabled for vocational rehabilitation services.

---

## SUCCESS IS THE KEYNOTE

of our Philadelphia — 1958 meeting! An interesting scientific exhibit will contribute much to our success. In addition to the tremendous value of these exhibits, YOU have the opportunity to be considered for one of the coveted awards. Requests for applications for scientific exhibit space in connection with the 36th annual session scheduled for August 24-29, 1958, Hotel Bellevue-Stratford, Philadelphia, are now being received. Official blanks will be mailed after January 1, 1958. Address all communications to the American Congress of Physical Medicine and Rehabilitation, 30 N. Michigan Ave., Chicago 2, Illinois.

# American Academy of Physical Medicine and Rehabilitation

## Officers and Committees

### 1958

#### Officers

President — George D. Wilson  
 President-Elect — Louis B. Newman  
 Vice-President — Clarence W. Dail  
 Secretary — Harriet E. Gillette  
 Treasurer — James W. Rae, Jr.  
 Executive Secretary — Dorothea C. Augustin

#### Board of Governors

Robert W. Boyle	Max K. Newman
Clarence W. Dail	Ray Piaskoski
Harriet E. Gillette	James W. Rae, Jr.
Louis B. Newman	George D. Wilson

#### Advisory Committee for Advancement of Physical Medicine and Rehabilitation

Louis B. Newman, <i>Chairman</i>	
Frances Baker	
Joseph G. Benton	Herman L. Rudolph
Donald A. Covalt	Charles D. Shields
Harvey F. Davis	Emmett M. Smith
Murray B. Ferderber	Samuel S. Sverdlik
A.B.C. Knudson	George D. Wilson
Lewis A. Leavitt	Solomon Winokur

#### By-Laws

Robert W. Boyle, *Chairman*  
 Earl C. Elkins  
 Glenn Gullickson, Jr.  
 Miland E. Knapp  
 Frederic J. Kottke  
 Donald L. Rose  
 Dorothea C. Augustin, *Ex-officio*  
 F. Manley Brist, *Ex-officio*

#### Economics in Private Practice

Arthur A. Rodriguez, *Chairman*  
 Dominic A. Donio  
 Leonard J. Yamshon

#### Grievance

Clarence W. Dail, *Chairman*  
 Carl C. Hoffman  
 Lewis A. Leavitt

#### Liaison with American Congress of Physical Medicine and Rehabilitation

Louis B. Newman, *Chairman*  
 Harriet E. Gillette  
 Ray Piaskoski

#### Liaison with

##### American Hospital Association

H. Worley Kendell, *Chairman*  
 Frank H. Krusen  
 Oscar O. Selke, Jr.

##### Liaison with Association of American Medical Colleges

Charles D. Shields, *Chairman*  
 James W. Rae, Jr.  
 Jerome S. Tobis

##### Liaison with Electromyography, Ultrasonics, and Mechanotherapy

William D. Paul, *Chairman*  
 O. Leonard Huddleston  
 David Rubin

##### Liaison with Anesthesiology, Pathology, and Radiology

Joseph L. Koczur, *Chairman*  
 Glenn Gullickson, Jr.  
 Ray Piaskoski  
 Ralph E. Worden

#### Membership

A.B.C. Knudson, *Chairman*  
 Sedgwick Mead  
 Edward M. Krusen, Jr.

#### Nominating

Herman L. Rudolph, *Chairman*  
 Glenn Gullickson, Jr.  
 A.B.C. Knudson

#### Program

Charles S. Wise, *Chairman*  
 Joseph G. Benton  
 Charles D. Shields

#### Research in Orthotics and Prosthetics

Herbert W. Park, *Chairman*  
 Robert L. Bennett  
 Roy H. Nyquist  
 Donald L. Rose  
 Odon F. von Werssowetz  
 Charles S. Wise

## COMMITTEE REPORTS

The following reports were presented at the annual business meeting of the American Congress of Physical Medicine and Rehabilitation, September 8-13, 1957, Hotel Statler, Los Angeles, California.

### Advances in Education

The American Academy of Physical Medicine and Rehabilitation asked the American Congress of Physical Medicine and Rehabilitation to join in preparing an Instruction Seminar so that a day might be devoted to this type of activity. This committee decided that it wished the Academy to plan the program for 1957.

The theme of the annual committee meeting this year was how to attract more young physicians into the field of physical medicine and rehabilitation. It was unanimously agreed that the program of education in medical schools should be universally developed under the supervision of a qualified physiatrist as adequately and effectively as possible.

**Recommendation:** that a joint committee representing the American Academy of Physical Medicine and Rehabilitation and the American Congress of Physical Medicine and Rehabilitation be appointed to consider the establishment of a permanent and sustained annual educational effort to provide a high level of graduate training for members of these organizations and for other physicians who are interested in this field. It is suggested for the coming year that the Committee on Advances in Education of the Congress and the Program Committee of the Academy join together to serve this purpose.

**Recommendation:** that teaching beds be made available in conducting residency training in the specialty of physical medicine and rehabilitation and that the responsibility for these patients be definitely given to the residents in training within their capacities and level of training. An equally essential component of a residency training program is the obligation and opportunity to take part in well-supervised research programs.

**Recommendation:** that the Board of Governors of the American Congress of Physical Medicine and Rehabilitation re-examine the list of standing committees with reference to delineating more clearly the specific duties of the committees with special reference to education; when an individual is appointed to serve on a committee, that he at the same time, receive an outline of the duties and objectives of said committee.

Respectfully submitted,  
Charles D. Shields, *Chairman*  
Arthur S. Abramson  
Joseph G. Benton  
Robert C. Darling  
Donald J. Erickson  
Lewis A. Leavitt

Fred B. Moor  
Donald L. Rose

### Awards for Scientific Exhibits

The selections of this committee were published in the January, 1958 issue of the *Archives of Physical Medicine and Rehabilitation*.

Respectfully submitted,  
Bernard Stoll, *Chairman*  
Karl E. Carlson  
Joshua Ehrlich  
A. F. Mastellone  
Oscar O. Selke, Jr.  
Wilbur A. Selle  
George C. Twombly, Jr.

### Balneology and Health Resorts

The members of this committee, as others who have given thought to the status of Balneology and Health Resorts in this country, are impressed with the lack of popularity of spas here as compared with their wide and general acceptance in European countries. The committee does not consider it pertinent at this time to discuss the reasons for this extreme divergence of opinions on this subject on the part of the inhabitants of our country and of those of other parts of the world.

We are of the opinion that the health and welfare of our citizens would benefit if adequate and proper spa regimens were followed by our adult population. Particularly so in view of recent developments in geriatric medicine and the increasing numbers of our "elder citizens." The attainment of this objective would require the expenditure of money, effort and time completely beyond the capacities of our organization.

As in European countries, it would take the resources of the national government to carry out an adequate program. With this in mind, a letter was addressed to Doctor Aims C. McGuinness, Special Assistant to Secretary for Health and Medical Affairs. His reply was as follows:

"While this Department has a deep concern with all developments in the field of national health resources, it lacks authority to take action of the type you cite in connection with the various foreign governments. We nevertheless want you to know of our interest in the program of your Committee. I have made your letter available to the Department's Office of Vocational Rehabilitation and can

assure you of their willingness to be of assistance to the Committee."

This reply was not entirely unexpected. The attitude of our governmental authorities is not sufficiently sympathetic to permit it to proceed with the necessary effort. However, our government has given some support to a spa, namely, at Hot Springs National Park in Arkansas. A recent appropriation of \$235,000 was made through the Park Service of the Department of Interior.

About twenty years ago, the chairman of this committee was requested by the French Government to establish a closer relationship between the medical professions in this country and in France. The French authorities offered to pay the expenses of American professors and students who would come to France. It expected a similar arrangement would be made for the French professors and scholars who would come to America. At that time our government did not appear to be sufficiently aware of the political advantages in developing cultural relations with other countries. We, therefore, could not accept the French offer.

About eighteen years ago, the French Government invited a group of American physicians and their wives to review the spas of France. No reciprocal invitation was issued by our government to French physicians.

Since World War II however, the attitude of our government has changed tremendously. By analogy, it may be that in the years to come, the attitude of our government may change with regard to the preservation and application of the natural resources represented by the spas for the health and welfare of our citizens. To this end it might be worthwhile for our organization to memorialize the proper governmental divisions perennially and at intervals until such time as the government agrees to take the action we recommend.

We have also been in communication with the Association of American Spas. This organization invited the members of our Congress to their annual meeting to be held October 3 to 5, 1957, at Saratoga Springs and Sharon Springs. In his letter of invitation, the Executive Vice-President of this association comments:

"It has always been puzzling to me why the medical profession has stood aloof from spas, whose therapeutic efficacy has been demonstrated by centuries of use. This last year 3 new spas opened in Florida, going great guns." We do not know whether these spas emphasize the medicinal value of their waters as well as their regimens, or make their appeal through special entertainment. If this association conducts its activities in an ethical manner, we should give it whatever support we can.

Until such time as your special Committee will be adequately subsidized by governmental

or other sources, it will be difficult for it to make substantial recommendations based on its own investigations — an objective to be wished for.

Respectfully submitted,  
William Bierman, *Chairman*  
Hans J. Behrend  
Howell Brewer  
William A. Dodson  
Henry Fleck  
Myron D. Lecklitner  
Walter S. McClellan  
Paul A. Oppenheimer

#### Braces, Splints and Prostheses

During the 1957 meeting of the American Congress of Physical Medicine and Rehabilitation, the committee on Braces, Splints, and Prostheses presented live demonstrations of upper extremity appliances which were carried out by Dr. David Rubin. Live demonstrations of lower extremity braces and prostheses were presented by Dr. John Aldes. These demonstrations were carried out in the morning and afternoon recess periods of the scientific meetings.

A recommendation of the 1956 committee — to contact privately endowed agencies that would be willing to fabricate newly devised apparatus at cost for Congress members — was carried out and circularized. To date, no requests have been received by the chairman. However, this recommendation should be carried on by the succeeding committee.

Space in the *Archives* was not reserved during the past year as no material was submitted to the committee for publication. However, this recommendation should be carried out by the succeeding committee.

Respectfully submitted,  
Louis P. Britt, *Chairman*  
Donald R. Adams  
John H. Aldes  
Edith L. Kristeller  
David Rubin  
Louis N. Rudin  
Allen S. Russek  
Frederick E. Vultee, Jr.  
Jessie Wright

#### Central Office Pension and Insurance Plans

The general membership of the Congress decided at its business session on September 11, 1957, that this committee be discontinued and that the findings of the committee be referred to the Executive Director of the Congress with power to act as he sees fit.

Respectfully submitted,  
Ben L. Boynton, *Chairman*  
A. Ray Dawson  
Samuel Sherman  
Arthur L. Watkins  
Walter J. Zeiter



### Chronically Ill and Aged

As a means of determining a concerted course of action, questionnaires were sent to the members of this committee. No formal meetings were held. The questionnaire was also designed to make known current studies and investigations, thereby minimizing the chances of duplication.

All members of the committee seem well agreed that, within the limits of their physical capacities, the aged should fully participate in an active program, adapted to their limitations. There appear to be conflicting views regarding full care of chronic illnesses in general hospitals with larger and more efficient physical medicine services, as opposed to continued or segregated care in convalescent hospitals or rehabilitation centers. The home care program for the chronically ill is being carefully observed to determine the feasibility of expanding such a program.

It appears well agreed that there is a continued need for further development of vocational exploration in preparation for some mode of employment. It is also felt that retirement of the aged should be an individualized procedure instead of an arbitrary and standardized age limit.

It is fully recognized that care of the chronically ill and aged will continue to be an ever-increasing need, and it is hoped that the chairman and committee members appointed for 1958 will attain greater success in making known and resolving the problems of care for those in need of such services.

Respectfully submitted,  
Leo Rosenberg, *Chairman*  
Michael N. Dacso  
Karl H. Haase  
Max K. Newman  
Jack B. Porterfield  
Joseph B. Rogoff  
G. Keith Stillwell  
Walter J. Treanor

### Constitution and By-Laws

The committee submits the following recommendations:

That CHAPTER I, Section 3(a) (Dues) of the By-Laws be amended by adding a new sentence at the end thereof, to read as follows: "*Affiliate members shall pay one-half the annual dues required of active members.*"

NOTE: This amendment was presented in 1956 for acceptance when action is taken on proposed amendment to Constitution creating affiliate membership.

That CHAPTER IV, Section 1(c) (Meetings — Property and Papers) of the By-Laws be amended by striking the words "secretary of the section" and insert in lieu thereof the following: "*officers of the session.*"

That CHAPTER V, Section 1(j) (Standing Committees) of the By-Laws be amended by striking the words "John S. Coulter Memorial Lecture Fund" and insert in lieu thereof the following: "*Memorials and Lectureships.*"

That CHAPTER V, Section 11 (Legislation) of the By-Laws be amended by striking the word "three" in the second line thereof and inserting in lieu thereof the word "*seven,*" and further amend the same chapter and section by inserting a new sentence at the end of the first sentence as follows: "*The various geographical areas of the country shall be represented on the committee.*"

That CHAPTER V, Section 13 (Medical Economics) of the By-Laws be amended by striking the word "three" in the second line thereof and by inserting in lieu thereof the word "*eleven*" and to amend further the same chapter and section by striking the second sentence thereof in its entirety, and insert in lieu thereof the following: "*The various geographical areas of the country shall be represented on the committee and so likewise shall the various types of physiatric practice, such as private, governmental, educational or otherwise.*"

That CHAPTER V, Section 2 (Advances in Education) of the By-Laws be amended by striking the words "the Council on Physical Medicine and Rehabilitation and."

The committee further recommends that each standing committee consider the advisability, if necessary, of altering the number of members of said committee and submit its recommendations to the next committee on Constitution and By-Laws for its consideration.

Respectfully submitted,  
Gordon M. Martin, *Chairman*  
Leslie Blau  
Miland E. Knapp  
F. Manley Brist, *Ex-officio*

### Cooperation with Food and Drug Administration

*Tranquilizing Drugs:* The Food and Drug Administration has pointed out evidence of side reactions from the use of reserpine. Research workers have categorized adverse reactions following use of meprobamate which with some patients, include withdrawal symptoms. The committee concludes that there is a possibility that the use of tranquilizer drugs without medical supervision may be attended with danger.

*Radio-Active Sand:* U. S. v. An article or device consisting of 4 tons, more or less, of an unlabeled blend of low grade uranium and thorium ores, now contained in so-called beds, namely, plywood boxes approximately 6½ feet long and 2½ feet wide, and 1 foot deep, for treatment of bursitis, arthritis and rheumatism. The committee corresponded

with Dr. John P. Monahan, Bureau of Medicine, Department of Health, Education and Welfare on March 5, 1957 informing him of an interesting exposé and summary judgment, from the U. S. Department of Justice, U. S. Attorney's Office, Miami, Fla. Through the courtesy of the Honorable C. C. Wyche, U. S. District Judge, Spartanburg, S. C., a copy of this judgment is submitted with this report for information purposes.

Respectfully submitted,  
George D. Wilson, *Chairman*  
Thomas P. Anderson  
George K. Arnold  
Josephine J. Buchanan  
Ernest Grove  
Gerald G. Hirschberg  
Isadore Levin  
Paul A. Nelson  
William Ryan

#### Correlation of Physical Medicine and Psychiatry

The committee carried on the following correspondence: A communication was addressed to Dr. Benjamin Simon, Chairman, Committee on Medical Rehabilitation, of the American Psychiatric Association:

"As Chairman of the Committee on Medical Rehabilitation of the American Psychiatric Association, I feel that you and other members of your Committee have problems that are somewhat related to those which are being studied by the Committee on Correlation of Physical Medicine and Psychiatry of the American Congress of Physical Medicine and Rehabilitation. Many of the members of the Committee, of which I am Chairman, are Psychiatrists — and likewise Diplomates of the American Board of Psychiatry — and thus are deeply interested in the problems of the rehabilitation of the neuropsychiatric patient. In particular, they are interested in the rehabilitation of the long term institutionalized patient who makes up the greater number of patients now hospitalized at our Neuropsychiatric Institutions.

"We of the Committee on Correlation of Physical Medicine and Psychiatry are of the opinion that not enough is being done to prove to the community that the long term neuropsychiatric patient can be productive and be a useful member of the community. With this in mind, we feel that something can be done by our allied Committees by arranging a conference on rehabilitation and other related problems with medical administrators of neuropsychiatric institutions through the offices of the American Psychiatric Association and the American Congress of Physical Medicine and Rehabilitation. We feel that through such a conference the medical administrator can be made aware of the

latest techniques in the rehabilitation of the neuropsychiatric patient and at the same time permit them to ventilate any ideas they may have in the rehabilitation of the same patient.

"The Committee is anxious to hear from you regarding this suggestion and recommendation."

In response to the foregoing letter, the following was received from Dr. Benjamin Simon:

"I am quite in accord with you on the need for bringing to the attention of the neuropsychiatric units the progress of rehabilitation and the merits of this.

"Off hand, it would seem to me to be most difficult to get a special conference together which would be attended by hospital administrators. There are two places where something might be done: one would be at the meetings of the American Psychiatric Association, and the other (which would seem to be more practical) would be to have such a conference as part of the Mental Hospital Institute. It is at this Institute that you will find most of the administrators of mental hospitals, particularly the state hospitals. The next meeting of the Institute will be in October 1957, and it might be possible to get to work with the Planning Committee on this matter.

"I will take up your suggestion with my Committee when it meets on May 12, in Chicago. If by chance, you are going to be there, it would be very desirable to join up for discussion of your suggestion. To some extent, this matter is going to be discussed at the Round Table sponsored by our Committee on Tuesday, May 14."

As per Dr. Simon's recommendation, Dr. Robert Garber, Committee Chairman, Mental Hospital Institute of the American Psychiatric Association, was sent the following letter:

"In my capacity as Chairman of the Committee on Correlation of Physical Medicine and Psychiatry of the American Congress of Physical Medicine and Rehabilitation, I have always felt that departments of Physical Medicine and Rehabilitation should be organized in our Neuropsychiatric Hospitals under the direct supervision of a psychiatrist deeply imbued with the fundamentals of rehabilitation as a therapeutic modality.

"Apropos to the above interest, I forwarded a letter to Dr. Benjamin Simon, Chairman of the Committee on Medical Rehabilitation, American Psychiatric Association, suggesting that an institute be set up attended by medical administrators of Neuropsychiatric Institutions. I am forwarding a copy of a letter which I sent to Dr. Simon and am also forwarding to you a copy of a recent letter received by me from Dr. Simon regarding my sugges-

tions. Hence, my reasons for writing you.

"In a letter of this type it is rather difficult to formulate any definite and concrete ideas regarding the importance of Physical Medicine and Rehabilitation Services in Neuropsychiatric Hospitals. As a Psychiatrist, I have been deeply concerned about this program and I am convinced of the importance of such departments in a Neuropsychiatric Institution.

"This Committee is interested in setting up a symposium or an institute on rehabilitation techniques and to discuss rehabilitation as a therapeutic modality. We would be interested in working with the Mental Hospital Institutes of the American Psychiatric Association.

"I would appreciate discussing this matter with you in person or with members of both Committees, namely, the Institute Committee of which you are Chairman and the members of the Committee on the Correlation of Physical Medicine and Psychiatry of the American Congress of Physical Medicine and Rehabilitation. I am anxious to hear from you regarding this suggestion and recommendation, and hope that such a meeting can be arranged."

In response to my request for assistance, the following communication was received from Dr. Robert Garber:

"Thank you for your communication of the 23rd of April as well as the copies of your correspondence with Dr. Benjamin Simon. I am very fearful that your suggestion to be incorporated in the Mental Hospital Institute at their annual meeting this October has come just a few weeks too late. We have completely filled our agenda of eighteen topics and, therefore, since the material has already been placed in the hands of the printers, it would be very awkward at this time to make any alterations in the program. The best thing I can do therefore, to be of any assistance, would be to see that a copy of this communication as well as the communications you forwarded to me are passed along to Mrs. Pat Vosburgh, who is the Executive Assistant to the Medical Director of the A.P.A., Dr. Daniel Blain.

"I do not want to give you the impression that there has been a lot of buck passing but rather would like to see you get proper assistance. My purpose in referring you to Mrs. Vosburgh is that she is the liaison officer between the A.P.A. and the Mental Hospital Planning Committee and therefore she can appropriately present your request to the new Committee which will take over after I bow out of the chairmanship next October. I trust that this will be of some assistance to you and your group in accomplishing your purposes."

A letter was then addressed to Mrs. Pat Vosburgh, Executive Assistant to the Medical

Director, American Psychiatric Association:

"I am enclosing a series of communications which I forwarded to Dr. Robert Garber, Committee Chairman, Mental Hospital Institute. This series of communications also includes letters forwarded to Dr. Benjamin Simon, Chairman, Committee on Medical Rehabilitation and his response to them.

"These communications, I feel, will be a good way of introducing the subject I am interested in. I have always felt that the proper direction of any milieu therapy in a neuropsychiatric institution should be administered by a physician, particularly a psychiatrist, who is interested in the rehabilitation of the neuropsychiatric patient. I feel that in this way proper administration, direction and control of milieu therapy can be provided with the organization of such a department in our neuropsychiatric hospitals. As a result, I have accepted the position as Chairman of the Committee on Correlation of Physical Medicine and Psychiatry and through this means I hope to set up a symposium or seminar through the Mental Hospital Institute with various medical administrators of our neuropsychiatric institutions.

"I would greatly appreciate if further discussion with the Mental Hospital Institute Planning Committee can take place regarding this suggestion for a seminar at the next Mental Hospital Institute to be held in the very near future. Any assistance on your part regarding this matter will be greatly appreciated."

On May 27, 1957, the following response was received from Mrs. Pat Vosburgh:

"Many thanks for your interesting letter of May 14th together with the correspondence with Dr. Garber and Dr. Simon.

"The idea of a discussion on Physical Medicine and Rehabilitation at one of the Institutes would, I think, meet a good reception from our Board of Consultants. These gentlemen will meet next during the Ninth Mental Hospital Institute in Cleveland, Ohio, on October 2nd, and if this is satisfactory to you, I will present your idea at this time. At the same time, I will get in touch with next year's program Chairman and we will then write to you.

"Would you let me know if these suggestions are satisfactory to you?"

Mrs. Vosburgh was sent the following reply:

"Thank you for your letter of May 27, 1957. I am deeply gratified with your efforts in presenting my suggestion to the Board of Consultants of the Mental Hospital Institute. I therefore give my permission for you to present this matter before this group so that it can be discussed as a possible symposium for the next Mental Hospital Institute meeting."

As a final step in arranging such symposia as indicated in the listed series of events, the following communication was addressed to Dr. Simon to determine any interests on the part of the Medical Rehabilitation Committee of the American Psychiatric Association:

"In your letter of April 1, 1957, in response to my letter of March 28, 1957, you mentioned that you will 'take up your suggestion with my Committee when it meets on May 12, in Chicago.' As I am quite interested in the reactions of our fellow Psychiatrists — particularly those functioning in our State Neuropsychiatric Institutions — regarding the establishment of a medically and psychiatrically supervised Medical Rehabilitation Department under the guidance of a physician specifically trained for this work (as in the Veterans Administration), I would appreciate hearing from you as to their opinions. I further am interested in cementing a closer relationship between our two Committees so that they function coordinately.

"I do thank you for directing me and my Committee members to contact the Planning Committee of the Mental Hospital Institute. It is possible that favorable results may culminate from this contact."

In my desire to set up and organize the Physical Medicine and Rehabilitation Service as presently functioning in Veterans Administration Neuropsychiatric Hospitals, the following communications were addressed to three "neighboring" Commissioners of Mental Hygiene — namely New York, Connecticut and Massachusetts.

The first communication was addressed to Dr. Paul Hoch, Commissioner of Mental Hygiene, State of New York:

"As Chairman of the Committee on Correlation of Physical Medicine and Psychiatry of the American Congress of Physical Medicine and Rehabilitation, I am taking this opportunity to contact you in order to obtain your opinion regarding the organization of Physical Medicine and Rehabilitation Departments in the various Institutions under your Supervision. As you know, such departments are medically supervised by a physician specializing in the field of medicine who is a Diplomate of the American Board of Physical Medicine and Rehabilitation, or by a physician specifically interested in this phase of medicine. In Neuropsychiatric Hospitals, the most effective Physical Medicine and Rehabilitation Departments are those supervised by a Psychiatrist who is particularly interested in the rehabilitation of the neuropsychiatric patients. There are many problems in motivation and retraining that are important for the neuropsychiatric patient, as well as the care of their physical needs. The care of their physical condition to offset contractures, physical deformities, etc.,

which may be enhanced by an associated neuropsychiatric condition, becomes a doubly serious problem in many psychiatric institutions. Hence, we as members of this Committee feel such departments should be favorably considered as organizational parts of the treatment program of a neuropsychiatric institution.

"In a letter of this type, it is most difficult to express in entirety the scope of such a service. I am sure you have many questions that should be answered. The Committee would be delighted to do so."

Dr. Hoch's reply follows:

"Your letter concerning the organization of Physical Medicine and Rehabilitation Departments in the institutions of the Department of Mental Hygiene poses a question which has been occupying our attention for some time.

"One part of the question is easily answered because the administration of the mental hospitals is by psychiatrists. The general supervision and control of policy is psychiatrically oriented. However, the problem of integrating psychiatry and physical medicine into a program which will have optimal value for the mental hospital patient is now being worked out by an active evolution. The pattern which seems to be emerging contains the following elements: 1. A consultant in physical medicine who has special interest in our area; 2. A physiotherapist with a department and necessary equipment; 3. Psychiatric supervision by a full-time staff member who is especially interested in this field; 4. An area of the hospital where patients under the most intensive care can be housed. This may contain one or more wards. The personnel has a special orientation for the work; 5. A definition of the types of patient most likely to benefit. In the State Hospitals the geriatric cases are the largest group; in the State Schools, the cerebral palsy patients, and 6. An attitude of flexible planning with retraining and re-education components. The area is much larger than that which physical therapy once comprised.

"I hope that this letter answers the questions which you had in mind."

On July 31, 1957 the same communication was addressed to Dr. John J. Blasko, formerly Commissioner of Mental Health, Hartford, Conn., and to Dr. Jack Ewalt, Commissioner of Mental Health, State of Massachusetts.

Dr. Blasko referred our communication to the various superintendents of State Hospitals under his supervision and to date the only response received from the four State Hospitals in Connecticut was from Dr. H. S. Whiting, Assistant Superintendent of Connecticut State Hospital, Middletown, Conn. His communication stated:



"I am in receipt of a letter from Dr. Blasko, enclosing a photostatic copy of your letter of July 31st addressed to him. Dr. Yerbury, our Superintendent, is on vacation during the month of August and will probably want to reply to your letter in greater detail.

"We do not at the moment have a Rehabilitation Department as such, although at one time in the past we did. At the present time our Social Service Department organizes this work with the aid of the staff of the Psychology Department and the Occupational Therapy Department, with some assistance from the State Rehabilitation Department. This work is, of course, being done on the rehabilitation of the mentally ill, and where physical factors are involved, the work is done by our medical and surgical staff. We hope in the future to organize this into a department, and quite possibly in the light of your offer we may, in the future, seek some advice from you."

Dr. Ewalt, Commissioner of Mental Health, Massachusetts, replied:

"Without burdening you with details, I would say that the physical medicine departments in our hospitals are for the most part rather poorly developed. In a few institutions, however, we have outstanding departments particularly those that deal with large numbers of patients with neurological complications. In those instances the department is supervised by a visiting physical medicine consultant who comes regularly from the community. All such services, of course, are under the supervision of the Superintendent and the Clinical Director, both of whom must be a well trained psychiatrist in our service. We do not carry separate rehabilitation departments in our hospital because administratively in Massachusetts we have a large state rehabilitation service that cuts across departmental lines. The various Department Heads are on the board of this service, but it is headed by its own Commissioner. The workers from the rehabilitation service come into our hospitals where they collaborate closely with the Department of the hospital in the various therapeutic aspects of patient care. The key to the coordination is through the social service department, but where there are problems other than purely psychiatric involved, the other therapeutic services of the hospital are also involved. I should say that the Division of Employment Security also cooperates closely with this program so that in effect our rehabilitation and placement services are tied intimately to large statewide organizations.

"I am confident that as our physical medicine departments continue to develop that we will eventually have a full time

physician in charge of these departments. At present the persons are not available in this area and we have been getting excellent service from the trained physical medicine specialists on a consulting basis."

It is to be noted from these letters from state commissioners of mental hygiene of truly progressive states in the problem of mental health and hygiene, much education as to functioning of physical medicine and rehabilitation in neuropsychiatric hospitals must be provided. The importance of medical supervision must be emphasized and the importance of setting up community living in mental hospitals must be fostered and publicized. The contents as expressed in their letters are self-evident and the problem is vast.

*Recommendation:* that every effort be made for an Institute or Symposium on Physical Medicine and Rehabilitation in Neuropsychiatric Hospitals to be organized for administrators of mental hospitals. Such a symposium cannot be organized over-night — much planning as to results desired, and organizational set-up required must be formulated. Such an institute should be a joint venture of the American Psychiatric Association and the American Congress of Physical Medicine and Rehabilitation.

*Recommendation:* since there is much crossing over into medical lines by ancillary services such as psychology, social service and vocational rehabilitation, a definition of the role of physiatrists and/or psychiatrists (rehabilitation minded) should be firmly impressed on all those concerned — for rehabilitation is not a specific facet of a specific part of the body, but the involvement of the whole personality and body into what makes community existence.

Respectfully submitted,  
Daniel Dancik, *Chairman*  
Adrian Baer  
Allen W. Byrnes  
Harvey F. Davis  
Jack Meislin  
Delilah Riemer

#### John S. Coulter Memorial Lecture Fund

The John S. Coulter Memorial Lecture Fund Committee invited Doctor Fred B. Moor of Los Angeles to present the Seventh John Stanley Coulter Memorial Lecture which was delivered at the 35th annual session of the Congress on September 11, 1957.

Respectfully submitted,  
James W. Rae, Jr., *Chairman*  
Robert L. Bennett  
Charles R. Brooke  
Shelby G. Gamble  
Madge C. L. McGuinness

### Essay Award

Three papers were submitted to the Essay Award committee. These papers were received by the members of the committee and each was given an objective grade based upon the following criteria: clarity, coherence, accuracy of content, adequacy of information sources, originality, and usefulness as a paper for publication in the *Archives of Physical Medicine and Rehabilitation*.

It was the unanimous opinion of the committee members reviewing the papers submitted that one of the candidates merited the award as set forth by the Congress. This includes a cash prize of \$200, a gold medal, and a certificate of award. We are pleased to announce that J. B. Redford, M.D., of Rochester, Minn., is the recipient of this award based upon his paper "The Effects of Breathing Exercises on Pulmonary Emphysema."

Respectfully submitted,  
Arthur A. Rodriguez, *Chairman*  
Harold Dinken  
Herman J. Flax  
Jacob Goldberg  
Frederic T. Jung  
William J. LaJoie  
George D. Williams

### Ethics

Your committee's assignment for 1957 was 1) to continue the study of guidelines for the physiatrist and to suggest a set of standards for the members of the American Congress of Physical Medicine and Rehabilitation, and 2) to propose what seems to be the proper course of action for members of the specialty of Physical Medicine and Rehabilitation.

The first order of business that was presented to the committee was a request to amplify for the sake of general information the problem relating to the corporate practice of medicine which will be Part I of this report. Part II shall be a suggested set of standards for the physician practicing physical medicine and rehabilitation. Part III shall be recommendations for action for members of the specialty of physical medicine and rehabilitation.

#### PART I: Amplification of Problems Relating to the Corporate Practice of Medicine

*Item 1:* The Committees on Ethics, Economics, Private Practice, and Rehabilitation Centers have been made increasingly aware of problems related to the corporate practice of medicine. At the Congress meeting in 1956, a panel on the economics and ethics of the practice of physical medicine and rehabilitation discussed the Iowa legal decisions of 1955, which once again stated that hospitals charging patients for the services rendered by physicians are guilty of practicing medicine which is

illegal not only in the state of Iowa but in most states of this country. Also physicians who permit the sale of their services by anyone not licensed to practice medicine violate the medical practice act and may have their medical license revoked and have their privilege of practicing medicine terminated.

*Item 2:* For purposes of delineating more clearly the problem of the corporate practice of medicine your committee held several conferences, including counsel of the legal departments of the American Medical Association and the legal counsel of the American Congress of Physical Medicine and Rehabilitation. No official legal opinions were sought or obtained but pertinent references were made to the following:

- (1) American Medical Association Publication entitled "Relation of Physicians and Hospitals."
- (2) A Study Relating to Corporate Practice of Medicine in the United States by the Law Department. American Medical Association, 1956 (with examples).
- (3) Decree in Hospital — Physicians Trial — District Judge C. Edwin Moore in District Court of State of Iowa in and for Polk County — No. 63095 Equity Iowa Hospital Association et al, Plaintiff  
Iowa Board of Medical Examiners et al, Defendant  
Iowa State Medical Society — Intervenor
- (4) Code of Ethics of the American Medical Association.
- (5) Statements from Attorney General of West Virginia and others.

*Item 3:* It is essential to point out from the start that it is ethical and proper for physiatrists to be employees of corporations where the corporations do not sell the professional services of the physician. This is the case of the physician who wholly or in part devotes himself to teaching, to research, to charity, or to government service or the like and is paid by the institution for his services.

*Item 4:* (From AMA Booklet "Relation of Physicians and Hospitals") (Guides for Conduct of Physicians in Relationships in the Institution — Adopted 1951)

*Page 9, Item No. 3:* 1. The practice of physical medicine is an integral part of the practice of medicine in the same category as the practice of surgery, internal medicine or any other designated field of medicine.

*Page 8, Item No. 1:* 2. A physician (physiatrist) should not dispose of his professional attainments or services to any hospital, rehabilitation center, corporation or lay body by whatever name called or however organized under terms or conditions which permit the sale of the services of that physician by such agency for a fee.

*Item 5:* (Notes from "A Study Relating

to the Corporate Practice of Medicine in the United States" by Law Department of the American Medical Association, Chicago, 1956)

House of Delegates of the AMA in 1948 requested that a study be made of the various state laws defining the legal status of corporations attempting to practice medicine in the various states.

A study was made of (1) the provisions contained in state medical practice acts and in the state laws under which incorporation can be effected; (2) pertinent court decisions and (3) opinions rendered by state attorneys general.

### General Rule

"The general rule with respect to the legality of the corporate practice of medicine is succinctly stated in 13 American Jurisprudence, under the section relating to the Corporations, as follows; Section 837: "While a corporation is in some sense a person and for many purposes is so considered, yet, as regards the learned professions which can only be practiced by persons who have received a license to do so after an examination as to their knowledge of the subject, it is recognized that a corporation cannot be licensed to practice such a profession. . . .

"A corporation cannot be licensed to carry on the practice of medicine. Nor, as a general rule, can it engage in the practice of medicine, surgery, or dentistry through licensed employees."

Section 739: "It is well settled that a corporation has only such powers as are expressly granted in its charter or in the statute under which it is created or such powers as are necessary for the purpose of carrying out its express power and the object of its incorporation."

"In Volume 1, Fletcher's Cyclopedia on Corporations, a recognized authority on corporation law, it is said on page 339:

'A Statute authorizing the formation of corporations to carry on any lawful business does not include the work of the learned professions. Such an innovation with the evil results that might follow would require the use of specific language clearly indicating that intention. The reasons lie deeper than lack of statutory sanction for it. Human personal qualifications for such professions cannot be possessed by a corporation. They would inhere in the members as distinct from the corporation, and it could not have the power to do illegally an act requiring a license which only they could obtain. Neither the practice of law nor the practice of medicine or dentistry is a permissible corporate object. This has also been extended to other professions of the healing art which have been given a legal recognition and license.'

### Illinois (Example)

STATUTES — An applicant for a license to practice medicine must be a graduate of a recognized medical college, be of good moral character and must pass an examination given by a board of medical examiners. The requirements prescribed by the medical practice act for licensure cannot be met by a corporation.

### COURT DECISIONS

Dr. Allison Dentist Inc. vs. Allison  
196 N.E. 799

In an action by a corporation practicing dentistry to enjoin a former employee, a licensed dentist, from breaching a contract not to practice dentistry within a prescribed distance of the corporate offices for a certain time, the court held the contract unenforceable for want of equity because the corporation was illegally practicing dentistry. Justice Shaw of the State Supreme Court wrote as follows:

"The practice of a profession is everywhere held to be subject to licensing and regulation under the police power and not subject to commercialization or exploitation (citing cases). To practice a profession requires something more than the financial ability to hire competent persons to do the actual work. It can be done only by a duly qualified human being, and to qualify something more than mere knowledge or skill is essential. The qualifications include personal characteristics, such as honesty, guided by an upright conscience and a sense of loyalty to clients or patients, even to the extent of sacrificing pecuniary profit, if necessary. These requirements are spoken of generically as that good moral character which is a prerequisite to the licensing of any professional man. No corporation can qualify. It can have neither honesty nor conscience, and its loyalty must in the very nature of its being be yielded to its managing officers, its directors, and its stockholders. Its employees must owe their first allegiance to their corporate employer and cannot give the patient anything better than a secondary or divided loyalty. . . . In the eighth paragraph of its complaint the plaintiff (the corporation) states that the defendant has acquired secrets and confidential information in regard to the patrons of the plaintiff corporation. It might well be inquired, In whom are these personal secrets reposed when a corporation attempts to practice? Can it be in the president alone, or is he under the corporate duty of disclosing them to his directors? And are the directors under the further corporate duty of disclosing them to stockholders? This very allegation of the plaintiff clearly demonstrates the inappropriateness of any corporate attempt to practice one of the learned professions, involving personal and confidential relations, and most

clearly demonstrates that such a practice is not and cannot be open to commercial exploitation."

*Item 6:* (Notes from Decree in Hospital-Physician Trial-District Judge C. Edwin Moore, in District Court of State of Iowa in and for Polk County No. 63095 Equity. Iowa Hospital Association et al Plaintiff, Iowa Board of Medical Examiners, et al Defendant. Iowa State Medical Society — Intervenor.)

On 7th day of December 1955, final judgment and decree: "The court declares that plaintiffs, be they corporations or individuals . . . in conducting and operating hospital pathology laboratory services, medical services performed and furnished in the diagnosis and treatment of human injury and disease, including the services of the pathologist himself, if there be one, and as such are engaged in the unauthorized, unlicensed and illegal practice of medicine."

" . . . in conducting and operating x-ray departments . . . are selling to the public, as x-ray services, medical services performed and furnished in the diagnosis and treatment of human injury and disease, including the services of the radiologist himself, if there be one, and as such one engaged in the unauthorized, unlicensed and illegal practice of medicine."

" . . . the pathologist or radiologist, by permitting a hospital to bill for medical services in the name of the hospital without the consent of the patient or his legal representative, violates the provisions of Subsection 4 of Section 147.56 of the Code."

Essentially it appears that it is unethical for a practicing physician to enter into any relationship which permits that corporation to offer his services for a fee.

The objectionable feature lies in the primary relationship and between the patient and the corporation. A corporation is an artificial being, incapable by its nature of ethical concept or professional responsibility. The character, integrity and wisdom of its members, trustees or administrators may in a particular case reduce or even temporarily eliminate the effect of the interposition of the corporation between the corporation and his doctor; but the relationship is unsound and in the long run harmful to the patient. The primary duty and responsibility of a corporate trustee or administrator is to the corporation and its work as a whole. What is best for the patient may or may not coincide in a particular instance with what is best for the corporation. The primary duty of the doctor is to the patient, and in a normal relationship he has no other responsibility or duty. If he has given to a corporation the right to sell his services, he has undertaken responsibilities and obligations which are irreconcilable and which may not be in the best interests of the patient.

*Item 7:* (In West Virginia—The Attorney General rendered several recent opinions.)

According to interpretation of the "Medical Practice Act of the State of West Virginia" by the Attorney General, any physician who disposes of his services by contract or otherwise to any hospital or individual which cannot be licensed to practice medicine is engaged in the unethical and illegal practice of medicine.

Medicine is one of the "learned" professions which require years of study, skill and special attainment in order to qualify for license to practice this profession. The license granted to practice medicine is a personal one and cannot be disposed of or granted to any hospital, lay body, organization or group by whatever name called or however organized.

The practice of anesthesiology, pathology, radiology, psychiatry, electro-cardiography, electro-encephalography and the interpretation of various laboratory procedures such as basal metabolism, are an integral part of the practice of medicine and are in the same category as the practice of surgery, internal medicine or any other designated field of medicine, and the personnel assisting in these various specialties are practicing medicine under the supervision of the physician in charge of the department.

In view of interpretation of Medical Practice Act . . . necessary to inquire into contractual relations between hospitals and physician specialists who are engaged in work of providing x-ray, pathological, anesthesiological and similar services to hospital patients.

*Item 8:* Also in the April 1957 issue of "Medical Economics," page 13, one finds a report that in the state of Texas a physician forfeits his license if he actually permits through his services a hospital or corporation to engage in "diagnosis or treatment."

*Item 9:* From the foregoing, it seems clear that the practice of medicine by a corporation through its employees is illegal in the State of Illinois and that these practices, if permitted, do aid and permit an unlicensed agency to practice medicine.

The medical ethics and socio-economic principles adopted and set forth by the organized medical profession indicate that such practices are also unethical.

When a corporation or organization not licensed to practice medicine acts in this manner and follows this course, it appears that it is engaged in an illegal and unethical practice of medicine in violation of the foregoing principles.

Inasmuch as it is not the intent of most organizations and their psychiatrists to do other than serve the community and medical profession, it is suggested that their policies be modified so as to be within the law and conform to policies set forth by the medical profession as proper in upholding the proper practice of medicine.

One readily available and suggested solution is at hand: "Recognizing that there is



an administrative and a professional aspect of the position of the physiatrist in institutions, it is believed that it is within the bounds of ethical propriety for the physiatrist to be paid a salary for his administrative functions, but he should charge a fee for the professional services to patients, which services may include examinations, recommendations, supervision and therapy and the professional medical activities of the physician."

## PART II: Proposed Principles of Practice of the American Congress of Physical Medicine and Rehabilitation

The standards of professional conduct for physicians that are stressed in this section are not new. They have been evolved and in existence for many years and have been applicable and binding to the physiatrist as well as all physicians.

*I affirm my devotion to the services of humanity and shall do everything I can to merit the confidence and sacred trust of the patients who entrust me with their care, rendering to each a full measure of service and devotion. My responsibility to my patient is my first obligation.*

*I affirm my adherence to the "Principles of Medical Ethics" of the American Medical Association and my determination to practice the profession of medicine and the specialty of physical medicine and rehabilitation in accord with them.*

*I affirm that I shall stand ever ready to make available my skills, services and knowledge to my colleagues and cooperate with them so that advances in medical knowledge particularly in physical medicine and rehabilitation will be available to them and their patients.*

*I affirm my obligation to do my utmost to protect the profession, the specialty of physical medicine and rehabilitation and the public against physicians deficient in moral character or professional competence.*

*I affirm that upon undertaking the care of a patient I shall not neglect him or discontinue my care without giving adequate notice.*

*I am free to choose whom I shall serve but shall not solicit.*

*I shall not dispose of my services under terms or conditions which 1) interfere with or impair the free and complete exercise of my independent medical judgment and skill; 2) cause deterioration of the quality of medical care, and 3) permit the sale of my services by any hospital, corporation, rehabilitation center, or lay body by whatever name called or however organized not licensed to practice medicine.*

*I shall not solicit nor accept a position which is occupied by another physiatrist without first consulting with that physiatrist.*

*I shall not divide fees for professional medical services performed by me directly or indirectly with any other person.*

*I shall not participate, directly or indirectly in any program, contrary to law or in any program for the rendering of professional medical services which is not under the direction and supervision of a licensed doctor of medicine.*

(N.B. The Board of Governors of the American Congress of Physical Medicine and Rehabilitation by official action on November 19, 1957, approves of these proposed principles of ethical practice and requests that these principles be adopted by the general membership at the meeting in 1958.)

## PART III: Recommendations

1. Your committee recommends that the Congress establish a monthly information bulletin which would keep members abreast of relevant events in the field of ethics, economics and matters related to the practice of physical medicine and rehabilitation. This would also relate information and suggestions on administrative practices, personnel supervision, socio-economic and ethical aspects, public relations, etc.

2. In order to promote ethical practices, your committee recommends that the Congress obtain and make available information concerning contractual arrangements with hospitals, rehabilitation centers, clinics, partnerships, etc. This material, available from the central office, would be of substantial value to members establishing themselves in practice.

3. In order that others may be informed of what constitutes ethical practice in this field, your committee recommends that the central office develop a series of additional publications and bulletins regarding the specialty of physical medicine and rehabilitation that can be used by the membership for distribution to: (a) their patients and lay public regarding the physiatrist and the specialty; (b) a series of bulletins to educate hospital administrators and trustees about the physiatrist and physical medicine and rehabilitation; (c) bulletins to instruct hospital medical staffs and other physicians; (d) bulletins to disseminate information about the physiatrist and the specialty of physical medicine and rehabilitation to insurance companies sponsoring medical plans.

4. Your committee recommends that the American Congress of Physical Medicine and Rehabilitation should keep its members informed and advised regarding ethical and socio-economic practices and problems which may affect its membership. The Congress should be responsible for reviewing the activities of its membership and advise them regarding dangerous practices.

5. Your committee recommends that there be established a liaison between the American

Congress of Physical Medicine and Rehabilitation, the American Academy of Physical Medicine and Rehabilitation, and the American Board of Physical Medicine and Rehabilitation for the maintenance of highly ethical standards for the practice of physical medicine and rehabilitation.

6. Your committee recommends that the Congress review the ethical problems relating to the paramedical services used in physical medicine and rehabilitation. This committee also recommends that the Committees on Ethics, Medical Auxiliary Services, Medical Economics, Private Practice, and Rehabilitation Centers annually review problems which may interfere with the rendering of optimal services to the sick and submit recommendations regarding these problems.

7. Your committee recommends that members through the Congress and their local societies encourage Blue Shield and medical care insurance plans to include physiatric consultation and physical medicine and rehabilitation services as benefits in these programs.

8. Your committee recommends that the Congress sponsor and arrange for an annual conference of physicians instructing medical students in physical medicine and rehabilitation and that the proceedings of this educational meeting be published in the *Archives of Physical Medicine and Rehabilitation*.

9. As a further aid in the promotion of ethical practices, your committee recommends: (a) that there be established a Placement Bureau by the Congress for its members without charge to them; (b) that the American Congress of Physical Medicine and Rehabilitation conduct an active program of recruiting and interesting young physicians in the field of physical medicine and rehabilitation, such as establishing some sort of liaison with the Student American Medical Association for the purpose of making known to members of that group the opportunities and needs in physical medicine and rehabilitation. It is recommended that the Congress Board of Governors assign this task to some specific committee.

Respectfully submitted,  
Joseph L. Koczur, *Chairman*  
Lee B. Greene  
Edward M. Krusen, Jr.  
Charles Long, II  
Joseph M. Markel

#### Finance

The accounts of the American Congress of Physical Medicine and Rehabilitation have been audited by an official and certified auditor. The financial report for the year ending December 31, 1956, indicates that the American Congress of Physical Medicine and Rehabilitation continues to operate on a sound financial basis.

The complete report has been published in the August, 1957, issue of the *Archives of Physical Medicine and Rehabilitation*, to which the committee respectfully refers any members of the Congress desiring further details.

Respectfully submitted,  
Louis B. Newman  
Herbert W. Park  
Charles S. Wise  
Frank H. Krusen, *Ex-officio*

#### Foster, Encourage and Coordinate Research Projects

This committee was canvassed for ideas on how it should function during the year. Several committee members suggested ideas with the most useful suggestion being that this committee should act as a registry for research projects. This committee asks that the Board of Governors consider and act on the proposed recommendations.

*Recommendation:* that the Congress Board of Governors clarify and define the functions of this committee in the constitution and by-laws.

*Recommendation:* establish a secretary of this committee to serve as a permanent member to insure continuity.

*Recommendation:* establish citations and awards for the best papers delivered at the annual Congress session. These papers should be divided into basic and clinical research papers and the awards are to be based upon originality of thought, clarity of presentation and other defined criteria.

*Recommendation:* that this committee serve as repository for research ideas and such proposed projects should be submitted with background material.

*Recommendation:* establish a roster of investigators in special fields.

*Recommendation:* establish a roster of foundations willing to provide funds for research in physical medicine and rehabilitation.

Respectfully submitted,  
Arthur S. Abramson, *Chairman*  
Robert W. Boyle  
William J. Erdman, II  
Richard V. Freeman  
Frank P. Ilasi  
Sedgwick Mead  
Norman Mitchell  
Bror S. Troedsson  
Harry T. Zankel

#### Gold Key Award

The selections of this Committee were published in the January, 1958 issue of the *Archives of Physical Medicine and Rehabilitation*.

Respectfully submitted,  
Arthur C. Jones, *Chairman*

Donald A. Covalt  
Donald J. Erickson  
Frederic J. Kottke  
Jerome S. Tobis

### Implementation of Departments of Physical Medicine and Rehabilitation in Medical Schools

Since my appointment as chairman of the committee on Implementation of Departments of Physical Medicine and Rehabilitation in Medical Schools, I have given considerable thought to the functions and goals of such a committee. The committee has discussed this at considerable length and we are firmly convinced that this committee could be a more effective force if there were not such dilution by duplication of committees. We are all aware, and we are sure that this includes you, of the random directions of development of departments of physical medicine and rehabilitation and of the similar diversities in teaching programs being evolved in medical centers across the country. This has caused all of us great concern for the future of our specialty, in large measure, will grow or become stunted in measure with this current planning. It is vitally important, therefore, that an effective committee be implemented to guide educational growth. The responsibility for this, it would seem, rests with two professional organizations — the Academy and the Congress — membership of which overlaps.

We are concerned that, at the present time, there are three major committees each directly concerned with this problem of education but each functioning separately and without coordination. These include the ACPM&R committees on Advances in Education and on Implementation of Departments of Physical Medicine and Rehabilitation in Medical Schools, plus the AAPM&R committee on Liaison with Association of American Medical Colleges.

Our second concern is with the short-term membership of the committee for we feel that for long-range effectiveness, a committee of this importance should not be appointed on a yearly basis but should carry longer term appointments, perhaps of a rotational type.

Accordingly, we are recommending to you for your consideration and the consideration of the Board of Governors that a single committee be appointed jointly from the American Congress and the American Academy of Physical Medicine and Rehabilitation which would combine the functions of the three existing committees and that these latter committees be abolished. We are further suggesting that members of the joint committee be appointed for two- or three-year terms on a rotational basis to prevent annual depletion of the committee. Finally, it would be desirable that appointees be representatives from key teaching centers with experience and prestige to

advise and guide the development of departments of physical medicine and rehabilitation and educational curricula. Such a committee could then undertake long-range services through OVR or other grants, could sponsor discussion conferences, could maintain liaison with the Association of American Medical Colleges and could more effectively assist medical centers in the development of departments and teaching programs.

Respectfully submitted,  
Edward W. Lowman, *Chairman*  
Ernest F. Adams  
Bernard J. Doyle  
Murray B. Ferderber  
Israel Muss  
Bruce B. Sutton  
George C. Twombly, Jr.

### Legislation

The committee attempted to keep informed of all proposed federal legislation being submitted to the Congress of the United States. The U. S. Congress has been relatively inactive in regard to passage of health legislation this year.

The only major bill of importance to our field was the passage of the appropriation bill for the Department of Health, Education and Welfare in which the expanded Office of Vocational Rehabilitation was granted in full. This will permit the O.V.R. to augment its support of rehabilitation projects under the Vocational Rehabilitation Act, Public Law 545. In addition, support for a three-year training program in physical medicine and rehabilitation was obtained.

Each year legislation of interest and perhaps deep concern to physical medicine and rehabilitation is proposed in various state legislatures. Our committee strongly feels that such proposed legislation be purviewed by representatives of our field most closely associated with the states where such legislation is proposed.

**Recommendation:** that the president of the American Congress of Physical Medicine and Rehabilitation appoint each year a legislative committee in each section to keep informed and act effectively when bills related to the field of physical medicine and rehabilitation are proposed.

Respectfully submitted,  
Jerome S. Tobis, *Chairman*  
Glenn Gullickson, Jr.  
Charles S. Wise  
Dorothea C. Augustin, *Ex-officio*  
F. Manley Brist, *Ex-officio*

### Medical Auxiliary Services Related to Physical Medicine and Rehabilitation

Based on the opinions, wishes, and desires of the majority of the members of the Congress

as expressed by the answers to the questionnaire, the Committee on Medical Auxiliary Services Related to Physical Medicine and Rehabilitation unanimously concludes that the majority of the Congress Members desires to recognize all the paramedical groups covered by the questionnaire as therapeutic divisions in Physical Medicine and Rehabilitation and that the majority also favors the establishment of a registry for qualified personnel in the respective groups, giving the American Congress of Physical Medicine and Rehabilitation the possibility of directing the policies of such registry and setting up standards, qualifications, and other requirements for becoming registered.

Therefore, the following recommendations are made: the following resolutions be presented for vote at the annual business meeting of the general membership of the Congress, held in Los Angeles in 1957:

1. WHEREAS the therapeutic field, called "Corrective Therapy" has been applied in medical rehabilitation programs in the past, and

WHEREAS the vast majority of the Congress members is thoroughly acquainted with the activity called "Corrective Therapy," and

WHEREAS the majority of the Congress members has expressed its opinion that this form of therapy should exist,

Be it resolved that according to the majority opinion expressed in the questionnaire, the American Congress of Physical Medicine and Rehabilitation recognize Corrective Therapy as one of the therapeutic divisions in Physical Medicine and Rehabilitation.

2. WHEREAS the therapeutic field, called "Educational Therapy" has been applied in medical rehabilitation programs in the past, and

WHEREAS a considerable majority of the Congress members is thoroughly acquainted with the activity called "Educational Therapy," and

WHEREAS the majority of the Congress members has expressed its opinion that this form of therapy should exist,

Be it resolved that according to the majority opinion expressed in the questionnaire, the American Congress of Physical Medicine and Rehabilitation recognize Educational Therapy as one of the Therapeutic divisions in Physical Medicine and Rehabilitation.

3. WHEREAS the therapeutic field, called "Manual Arts Therapy" has been applied in medical rehabilitation programs in the past, and

WHEREAS a considerable majority of the Congress members is thoroughly acquainted with the activity called "Manual Arts Therapy," and

WHEREAS the majority of the Congress members has expressed its opinion that this form of therapy should exist,

Be it resolved that according to the majority opinion expressed in the questionnaire, the American Congress of Physical Medicine and Rehabilitation recognize Manual Arts Therapy as one of the therapeutic divisions in Physical Medicine and Rehabilitation.

4. WHEREAS the therapeutic field, called "Language Therapy" or "Speech Therapy" has been applied in medical rehabilitation programs in the past, and

WHEREAS the vast majority of the Congress members is thoroughly acquainted with the activity called "Language Therapy" or "Speech Therapy," and

WHEREAS the majority of the Congress members has expressed its opinion that this form of therapy should exist,

Be it resolved that according to the majority opinion expressed in the questionnaire, the American Congress of Physical Medicine and Rehabilitation recognize Language Therapy or Speech Therapy as one of the therapeutic divisions in Physical Medicine and Rehabilitation.

5. WHEREAS the "Coordinators" or "Administrative Assistants," also called "Rehabilitation Directors" and/or "Coordinators" have been active in medical rehabilitation programs in the past, and

WHEREAS a very great majority of the Congress members is thoroughly acquainted with the activity of these Coordinators, and

WHEREAS the majority of the Congress members has expressed its opinion that this activity should exist,

Be it resolved that according to the majority opinion expressed in the questionnaire, the American Congress of Physical Medicine and Rehabilitation recognize Rehabilitation Directors or Coordinators as part of the rehabilitation team in Physical Medicine and Rehabilitation.

Based on the statistical evidence at hand, the committee does not recommend any change of name of any of the groups, but recommends to accept the names presently used by the groups unless there should ever arise in the future any indication or desire for such a change.

The committee also does not recommend any fusion of Educational Therapy and Language or Speech Therapy, or Educational and Manual Arts Therapies.

The committee furthermore recommends, as desired by the majority of members, further consideration and study to be given by the American Congress of Physical Medicine and Rehabilitation to "Recreational Therapy" and "Orientors of the Blind." Moreover, although only a minority expressed its opinion in favor of investigating other existing forms of therapy, the committee is inclined to recommend that those so-called therapies, such as Choreotherapy, Music Therapy, Bibliotherapy,



etc., be studied, not necessarily from the point of recognizing separate groups, but from the point of need and the possible introduction of the duties and responsibilities of such groups into the existing and recognized divisions in Physical Medicine and Rehabilitation.

The majority of Congress members has expressed its desire of establishing registries for qualified paramedical personnel to enable the American Congress of Physical Medicine and Rehabilitation to direct the policies of such registries and setting up standards, qualifications and other requirements for becoming registered.

This committee has contacted various organizations representing the paramedical groups in question and can state that the Corrective Therapists are represented by the Association for Physical and Mental Rehabilitation, the Educational Therapists and Manual Arts Therapists by the American Association of Rehabilitation Therapists, the Language or Speech Therapists by the American Speech and Hearing Association, and the Rehabilitation Directors and Coordinators by the Association of Medical Rehabilitation Directors and Coordinators. Upon request these organizations have supplied this committee with a variety of printed and mimeographed material showing the constitution and bylaws, the code of ethics, and other informative data which are enclosed as Exhibits I, J, K and L, respectively.

Study of these publications reveals that the academic requirements and prerequisites set up by these organizations for their members and prospective members are of a high type with minimum requirements of a bachelor's degree and college curricula assuring a minimum amount of knowledge for safe and efficient application of the various fields. There is no doubt that certain modifications in training and practice may be indicated at some future time, improvements for which the groups apparently have been striving all along. The code of ethics of the respective organizations, furthermore, reflects their professional behavior and all groups have voluntarily restricted their work to proper supervision by physicians. Moreover, the four organizations have each set up certifying boards which register the respective paramedical personnel as qualified if they fulfill the prerequisites and if their training and experience are considered adequate by the certifying body. In addition the American Board for Certification of Corrective Therapists requires passing of a comprehensive examination which includes written, oral, and performance parts. The organizations as well as the certifying boards are well known to many Congress Members, since they have served on the advisory boards of these organizations for quite some time.

This committee believes that the majority decision favoring establishment of registries does not necessarily mean the establishment

of new registries by the American Congress of Physical Medicine and Rehabilitation. To set up such bodies probably would be costly in funds and manpower without accomplishing much over and beyond the scope of the existing certifying bodies. The establishment of new registries may also easily be considered as a denouncement of the existing ones and thereby antagonize the paramedical groups whose cooperation the Congress is inviting.

Therefore, the committee recommends that a motion be placed before the members at this business meeting being held in Los Angeles in 1957 to direct the President of the Congress to appoint a special committee of five members to serve for three-year periods as liaison to the American Board for Certification of Corrective Therapists, the Registry of Medical Rehabilitation Therapists, the Committee on Clinical Certification of the American Speech and Hearing Association, and the Certification Committee of the Association of Medical Rehabilitation Directors and Coordinators which certify respectively the Corrective Therapists, Educational and Manual Arts Therapists, the Speech and Hearing Therapists, and the Medical Rehabilitation Directors and Coordinators. (It is recommended that in order to avoid duplications, the Registry of Medical Rehabilitation Therapists and Specialists which also registers Speech Therapists and Rehabilitation Directors and Coordinators should be limited to the registration of Educational and Manual Arts Therapists at this time until, through cooperation of the various groups, such confusing duplication can be avoided.)

The duties and responsibilities of the Liaison Committee are still to be specified in detail, but they should be such that the committee through diplomacy and cooperation would enable the Congress in being instrumental in directing the policies of these various certifying boards and in setting up standards, qualifications, and other requirements for becoming registered. It is the opinion of this committee that the various organizations and certifying boards would gladly accept the help of the American Congress of Physical Medicine and Rehabilitation since all the activities under discussion are undoubtedly part of Physical Medicine and Rehabilitation and since the Congress invites all physicians and surgeons interested in this field to become members and does not restrict membership to physiatrists. Therefore, the Congress is, in the opinion of this committee, the natural body to supply leadership to all these paramedical groups.

(N.B. This report is published in abbreviated form.)

Respectfully submitted,  
Fritz Friedland, Chairman  
Bathurst B. Bagby, Jr.  
William Bierman  
Harriet E. Gillette

Arthur C. Jones  
 Harry Kessler  
 Joseph L. Koczur  
 Lewis A. Leavitt  
 Louis B. Newman  
 George M. Piersol  
 Delilah Riemer  
 Jacob L. Rudd  
 Bernard Stoll

### Medical Economics

Although your committee had no formal meetings during the past year, it has by means of mail and telephone communications during the past year, been able to formulate this report which by no means or fashion duplicates last year's dramatic confidential report presented to this group. The committee however took under consideration a few of the many recommendations presented to this group by last year's committee on Medical Economics.

*Consideration:* The controversy regarding the relationship among hospitals, physicians, and hospital-employed physicians was mutually settled in several of the states, but it still continues to be a very touchy and serious problem in most sections of the United States. Certain state courts have rendered declaratory judgment on the point that hospitals, or clinics, charging for services rendered by physicians on a salary or percentage arrangement were guilty of corporate medical practice, which in the eyes of the court was an illegal practice. On November 15, 1956, a hospital-physicians agreement was developed and approved by a joint committee of hospital trustees and the Iowa State Medical Society, that is and should be of utmost interest to all physiatrists associated with hospitals, clinics, rehabilitation centers or medical schools. The joint declaration ratified by the Iowa State Medical Association, and the Iowa Hospital Association was negotiated by three hospital trustees representing the hospitals, the president of the Iowa State Medical Association, the president of the Iowa State Board of Medical Examiners, and the attorney for the Iowa State Medical Society representing the physicians. The declaration conformed to a district court decree derived from a law suit between certain Iowa physicians and hospitals, which sustained the physicians' position in radiology and pathology in the hospitals mentioned.

The principles of this declaration, although directed to the practice of radiology and pathology — are of equal importance and significance to all physiatrists who practice their specialty as employed physicians in any corporate group. The Iowa settlement incorporates certain fundamental objectives which were sought for and won by the Iowa physicians in the court test. These are:

1. Clear delineation of the practice of radiology and pathology as the practice of medicine.
2. Transfer of radiology and pathology from Blue Cross payments to Blue Shield payments.
3. Rendering of bills in the name of the physician responsible for the services rendered.
4. There cannot be an employer-employee relationship between a hospital and a physician.
5. Hospital may own and maintain laboratory and x-ray facilities and may operate them within purview of the Joint Declaration.
6. Hospitals are to employ technologists and technicians unless it is mutually agreed otherwise.
7. The employment, discharge, and disciplining of technologists and technicians and the establishment of fees are to be accomplished by mutual agreement between the doctor and the hospital with the Joint Conference Committee of the hospital resolving any differences.
8. Hospitals are not to interfere with professional medical acts of the physician or technologist and technician under his supervision.
9. A contract may be oral or written and shall provide for compensation as agreed to by the parties involved, but any compensation arrangement must conform to the principles contained in the Joint Declaration.

*Review:* The committee reviewed the Eighth Quadrennial Medical Economics survey conducted by Columbia University Bureau of Social Research and found some very revealing and interesting facts that may be doubted and debated by members of the Congress. This survey listed the professional expenses of the self-employed physician in physical medicine as being next to the lowest of thirty selected specialties, being only slightly higher than the practice of anesthesiology and industrial medicine. Highest on the list were the practice of plastic surgery, (\$14,825); radiology, (\$13,000) and allergy (\$12,750). In twenty-eighth place physical medicine was listed as having the sum of (\$3,500) or 24 per cent of the gross earnings required by the private practitioner to carry on this specialty. The validity of these statistics was questioned by the committee chairman and by one of our Congress members who conducts a private practice in physical medicine and rehabilitation. This member wrote to the editor of "Medical Economics" questioning the figures presented in the survey and in response to the letter the associate editor of "Medical Economics, Inc." wrote:

"We are sorry to hear that you question the validity of our figure representing the 1955 median professional expenses of spe-

cialties in physical medicine, as published in the December 1956 issue.

"Of course we have no way of checking on the accuracy of the figures submitted to us by any individual doctor. However, the figures we reported (\$3,500 or 24% of gross income from practice) is the actual median or middle figure submitted by a large and fairly well distributed group of full-time specialists in physical medicine, all of whom claim that practice. Professional expenses, as the term is used here, applied to all tax-deductible items. Thus it does not include the initial cost of equipment, although it does include depreciation on equipment. Columbia University's Bureau of Social Research, which handled the Eighth Quadrennial Survey tabulations for us, assures us that the resultant figures are as accurate as modern statistical methods can make them."

**Review:** Your committee reviewed Public Law 569 which is better known as the Dependents' Medical Care Act recently passed by the 84th Congress of the United States. This program was designed to provide prepaid medical care for members of the armed forces and their dependents. Its primary objective is to relieve the service members of fear concerning the quality and cost of the care provided eligible dependents of the man or woman in any branch of our armed forces.

In reviewing the Physicians' Fees and Procedure Guide of Dependents' Medical Care Act, it was discovered that no provisions were made for the payment of physical therapy or rehabilitation treatments. Your chairman wrote to Major General Paul L. Robinson, Executive Director, Office for Dependents' Care to see why these services were not included in the list of authorized prepaid services. General Robinson, in a communication dated July 5, 1957, wrote:

"With regard to your letter of 24 June 1957, please be advised that your communication will be given due consideration in future revisions of the Dependents' Medical Care Program.

"Possibly, however, the American Congress of Physical Medicine and Rehabilitation might like to be more specific in its recommendations and to list those physical therapy treatments or rehabilitation procedures which it thinks should be listed in our program. It would also be deeply appreciated if the Congress decides to list those procedures to give them a relative value. By this, I do not mean a dollar value because as you are aware the dollar values of items in our Schedules of Allowances are all negotiated with the state medical societies. I presume also that there would be certain treatments that are rendered by the physician and others rendered by physical therapists. If you do decide to submit a list for our consideration, it would

be greatly appreciated if you would list both categories separately."

This matter will be referred to the Board of Governors of the American Congress of Physical Medicine and Rehabilitation for appropriate action.

**Action:** The committee has been active with a recruitment program designed to stimulate interest in the field of physical therapy among nurses, physical education and high school students. Several of the committee members have lectured and presented films to these groups in an endeavor to get more people interested in physical and/or occupational therapy as a career.

Respectfully submitted,  
Herman J. Bearzy, *Chairman*  
Hilda B. Case  
Joseph E. Cox  
C. Robert Dean  
Edward F. Delagi  
Arthur E. Grant  
H. Worley Kendell  
Harold B. Luscombe  
Saul Machover  
Joseph Martella  
Harry W. Mims  
Herman L. Rudolph  
Sylvester S. Zintek

#### Meeting Place

A number of invitations was issued to the Congress relative to the meeting place for 1960. Because the American Congress of Physical Medicine and Rehabilitation will be meeting jointly with the International Federation of Physical Medicine, the Board of Governors felt that the Nation's capital would be most fitting for the first international meeting of our specialty in the United States. The week of August 21, 1960 has been reserved for this very important session. Headquarters hotel will be selected later.

At present the Congress meeting schedule is Bellevue Stratford, Philadelphia, August 24-29, 1958, and Hotel Leamington, Minneapolis, August 31-September 4, 1959. Detailed announcement concerning 1961 will be made later.

Respectfully submitted,  
Walter J. Zeiter, *Chairman*  
John W. Deyton  
Ray Piaskoski  
Nathan H. Polmer  
Howard L. Schnur  
Duane A. Schram  
Charles Stansky

#### Membership

The Membership Committee endeavored, during its tenure, to increase the active membership role of the American Congress of Physical Medicine and Rehabilitation. No

special problems or continuation of activities were referred to this committee, with the exception of the status of Dr. Hans V. Seemen.

After due consideration of varying methods of increasing the active membership of the American Congress of Physical Medicine and Rehabilitation, the committee decided that:

- (1) An all-membership letter be sent asking each individual member of the American Congress of Physical Medicine and Rehabilitation to assume his responsibility to increase the membership of his organization.
- (2) A letter be sent to each chief or acting chief of Physical Medicine and Rehabilitation Service of each VA hospital to contact his fellow physicians, utilizing and interested in the practice of physical medicine, both within his hospital and his community, to become active members of the American Congress of Physical Medicine and Rehabilitation.

The committee became aware of the time factor of its one year tenure and that during one year considerable time is spent through correspondence in reaching a common program, following which this program is placed into an activity phase and shortly thereafter the twelve months have elapsed and it is time to submit a report of results. Also, there is no standard procedure outlined by the body of the American Congress of Physical Medicine and Rehabilitation for the Membership Committee to utilize for increasing their membership status. Thus, each year considerable time is lost by each succeeding Membership Committee in determining their protocol of procedure and methodology prior to its activation.

Therefore, after due consideration and evaluation, the majority of the committee members is agreed that a form of continuing program is necessary and that other sources of potential membership within our American Congress of Physical Medicine and Rehabilitation need to be approached and evaluated. Suggestions of varying physician groups to be approached were general practitioners, industrial physicians and geriatricians, or physicians utilizing principles and practices or employing therapists in the principles of Physical Medicine and Rehabilitation.

If these other physicians of other specialties are to be approached for active membership within the American Congress of Physical Medicine and Rehabilitation, the committee felt that these physicians should be offered educational programs, both at the time of the annual meeting as well as at the time of regional meetings of the American Congress of Physical Medicine and Rehabilitation.

The committee also considered the advisability of the establishment of foreign sections under jurisdiction of the American Congress of Physical Medicine and Rehabilitation.

Also discussed was the advisability of the development of a brochure similar to that utilized by other organizations as a means of increasing interest within varying physician groups who might become potential members of the American Congress of Physical Medicine and Rehabilitation. Such brochure could be a continuous adjunct and available to future membership committees in their overall program, to be revised and edited as indicated by succeeding membership committees.

Questionnaires were developed by this committee, one of which could be sent to medical schools to evaluate their establishment of departments of Physical Medicine and Rehabilitation. This, in turn, would give a valuable source of physicians as potential members of the American Congress of Physical Medicine and Rehabilitation. The other questionnaire could be sent to all rehabilitation institutes and hospitals of 250 beds or larger and this, in turn, would also be a positive source for the committee to utilize in increasing membership status within the American Congress of Physical Medicine and Rehabilitation.

The committee, therefore, respectfully submits the following recommendations for your action:

*Recommendation:* establishment of a continuing recruitment program, policy to be formulated by the forthcoming Membership Committee, for at least two-year periods so that each succeeding Membership Committee can enter into an active program following its appointment. Also, that 1/3 of the previous committee members be carried over into the succeeding Membership Committee, with rotation of the chairman from the committee.

*Recommendation:* the developed questionnaires are to be sent to medical schools and rehabilitation institutes and hospitals of 250 beds or larger by the succeeding Membership Committee.

*Recommendation:* concerted effort to be continued to encourage membership status within the American Congress of Physical Medicine and Rehabilitation of physicians such as geriatricians, general practitioners, industrial physicians, and other such interested physicians.

*Recommendation:* the establishment of foreign sections under the jurisdiction of the American Congress of Physical Medicine and Rehabilitation so that interested physicians of foreign countries will be able to join a specific section of the American Congress of Physical Medicine and Rehabilitation. This, if approved, will be referred to the Committee on Constitution and By-Laws.

*Recommendation:* that increased emphasis be placed on educational seminars for these physicians, both at future annual meetings as well as at regional meetings of the American Congress of Physical Medicine and Rehabilitation.



tation, and that means of giving credit hours for participation of such seminars be established. This recommendation will be referred to the Committee on Advances in Education.

*Recommendation:* development of a brochure by the succeeding Membership Committee to be utilized in its overall program and carried forth to succeeding membership committees, modified as necessary by each committee.

An effort has been conducted by the Chairman of the Membership Committee to clarify further the status of Dr. Hans V. Seemen. Letters sent to varying physicians about this matter have not been answered during tenure of this committee or preceding committee. After evaluation of photostatic material in the central office of the American Congress of Physical Medicine and Rehabilitation by the chairman of this committee, it has been decided that since Dr. Hans V. Seemen was an Honorary Member in good standing of the American Congress of Physical Therapy in 1935, that he be permitted to maintain this status.

The following individual applicants were elected to membership:

*Arizona:* Francis J. Carr, Whipple.

*California:* Frederick W. Modern, Long Beach; Rex H. Newton, San Diego; Ragnar Stadin, Glendale; Linville Valentine, Santa Monica; Merton J. Vanderhoof, Norwalk.

*Colorado:* Arnold C. Balk, Englewood; Frederick J. Sheffield, Denver.

*Connecticut:* George D. Dorian, Westport; Raimunds Pavasars, Rocky Hill; Vladimir T. Liberson, Rocky Hill.

*Delaware:* Arthur J. Heather, Wilmington; Abraham Vinograd, Wilmington.

*District of Columbia:* Carl V. Granger, Washington.

*Florida:* Mortimer Abrashkin, Miami Beach; Earl C. Gluckman, Coral Gables.

*Illinois:* David Abramson, Oak Park; Clara J. Fleischer, Highland Park.

*Massachusetts:* Steven Bader, Rutland Heights; Henry E. Fidrocki, Milton; David S. Moses, Roslindale.

*Maryland:* Willis C. Beasley, Bethesda.

*Michigan:* Russell S. Blanchard, Detroit; Carol E. Goodman, Ann Arbor; Stanley Olejniczak, Detroit; Edwin M. Smith, Ann Arbor.

*Minnesota:* William G. Kubicek, Minneapolis; Charles H. Flint, Rochester; Richard R. Owen, Minneapolis; Arthur N. Quiggle, Minneapolis.

*New Jersey:* Lewis Fritts, Somerville.

*New York:* Abraham Posniak, Flushing; Joseph O. Singer, New York City; Sidney I. Silverman, New York City.

*North Dakota:* Martin G. Flom, Fargo.

*Ohio:* Kenneth Archibald, Cleveland;

André Callot, Cleveland; Ernest W. Johnson, Columbus; Richard F. Baer, Toledo.

*Pennsylvania:* Mary F. Nawrocki, Pittsburgh; Robert G. Stevens, Williamsport.

*Tennessee:* Oliver A. Duff, Memphis.

*Texas:* John S. Tennant, Bellaire.

*Wisconsin:* Theodore F. Crabbe, Tomah.

*Hawaii:* Jens D. Henriksen, Honolulu.

*Foreign:* Humberto Rojas Araya, San Jose, Costa Rica; Antonio Martinez Lavandier, Trujillo, D.N., Republic Dominica; Florencio Saez, Jr., Rio Piedras, Puerto Rico; Mario A. Nova, Mexico, D.F., Mexico.

The following members are deceased: F. W. Harvey, Montreal, Que., Canada; John S. Hibben, Pasadena, Calif.; Clinton D. Hubbard, Manhattan Beach, Calif.; William G. Lewi, Santa Monica, Calif.; James B. Mennell, Rake, Liss, Hants, England; Carl B. Sputh, Indianapolis; Edward C. Titus, New York City; Samuel A. Warshaw, Brooklyn.

Fourteen resignations were received; seven members were dropped for nonpayment of dues, and eighteen members were delinquent.

The chairman of this committee expresses appreciation and thanks to the respective members of the committee for their cooperation and help, as well as to the executive office of the American Congress of Physical Medicine and Rehabilitation, and especially to the executive secretary.

Respectfully submitted,  
Lewis A. Leavitt, *Chairman*  
Folke Becker  
Leon R. Burnham  
Nadene Coyne  
Robert F. Dow  
Joseph F. Dreier  
Otto Eisert  
Gustave Gingras  
Margaret M. Kenrick  
Florence I. Mahoney  
Raymond Mundt  
Wesley L. Nolden  
Roy H. Nyquist  
Edward B. Shires  
Frederick Ziman

#### Nominating

On December 31, 1958, the terms of two members of the American Board of Physical Medicine and Rehabilitation will expire, namely: Doctors Arthur L. Watkins and William H. Schmidt. Although these men are both eligible for another term of service on the American Board, your nominating committee has been asked to select eight other candidates, making ten in all, from among whom two selections may be made. The reason for this early action is that after our selection, the American Board must make its selection. The committee has chosen the

following ten names from among the Congress membership: Frances Baker; Robert W. Boyle; Robert C. Darling; William J. Erdman, II; Thomas F. Hines; Louis B. Newman; William H. Schmidt (Incumbent); Charles D. Shields; Arthur L. Watkins (Incumbent), and Charles S. Wise.

It has been the custom in past years to nominate only the fifth vice-president and to advance the rank of all those above him one step, unless there is some very important reason for doing otherwise. Since there appeared to be no reason this year for deviating from this custom, your committee selected a new candidate for the fifth vice-presidency only.

The committee began its work about six months ago by correspondence. Copies of all correspondence were sent to all committee members so that at all times each member was informed of current developments. There was ample time for careful consideration of the many possible candidates for the fifth vice-presidency which the various committee members proposed. It is an interesting thing that in three of the four lists which were returned from other members of the committee on the first letter of inquiry, the name of the nominee whom we have chosen was listed as first choice on one, second on another, and fourth on a third list. His was the only name mentioned on more than two ballots. As the balloting continued, this man emerged as the unanimous choice of the committee.

Our nominee has had a long continued and active interest in the Congress; he has attended our annual meetings regularly; he has served effectively on many committees; he has made numerous contributions to physical medicine literature based on both original laboratory and clinical research. One of his contributions to patient care has undoubtedly been life saving. I am sure that these are the considerations which were in the minds of the committee on our first ballot.

For fifth vice-president of the American Congress of Physical Medicine and Rehabilitation your Committee on Nominations presents the name of Dr. Clarence W. Dail.

The slate of nominees for the offices of the Congress then is President, Donald L. Rose, Kansas City, Kansas; President-Elect, Arthur C. Jones, Portland, Ore.; first Vice-President, Frederic J. Kottke, Minneapolis; second Vice-President, Donald A. Covalt, New York City; third Vice-President, Donald J. Erickson, Rochester, Minn.; fourth Vice-President, Jerome S. Tobis, New York City; fifth Vice-President, Clarence W. Dail, Los Angeles; Secretary, Frances Baker, San Mateo, Calif.; Treasurer, Frank H. Krusen, Rochester, Minn., and Executive Director, Walter J. Zeiter, Cleveland.

Respectfully submitted,  
Fred B. Moor, *Chairman*

Earl C. Elkins  
Carl C. Hoffman  
William D. Paul  
Wm. Benham Snow

### Private Practice

No formal meeting was held but the following report was developed by correspondence and conversation:

Physical Medicine and Rehabilitation being a new specialty is having problems in evolving a sound, well-accepted economic basis for its practice. Where formerly it was entirely an institutional type of medicine, it is gradually expanding into the common pattern of medicine, namely the private type of practice. We define private practice as that in which the physician assumes a direct professional relationship with the patient for a fee to be paid to the physician.

The trend for prepaid insurance plans in financing medical care continues unabated. Yet almost no plans provide for physical medicine services in a physician-fee schedule. We feel this is due to the lack of awareness of fee schedule planners as to the nature of our services and even to our very existence. This lack of awareness of the existence of a private practice of physical medicine and rehabilitation is also found in our own members. Our specialty will increase in strength and stature among our medical colleagues in other fields in proportion to the number of us who participate in the same pattern of medicine as they do — namely, private practice.

*Recommendation:* That the Congress request the various prepaid health plans to include physical medicine services in their fee schedules.

*Recommendation:* That papers be requested for presentation and publication on the private practice of physical medicine so that residents and institutional physiatrists be acquainted with the needs and opportunities of private practice.

*Recommendation:* That this committee be continued.

Respectfully submitted,  
S. Malvern Dorinson, *Chairman*  
Sherburne W. Heath, Jr.  
Morton Hoberman  
E. J. Lorenze, III  
Joseph E. Maschmeyer  
Nicholas D. Mauriello  
Samuel S. Sverdluk

### Program Committee

You have had in your hands all week the outcome of the work of the Program Committee this year. I must say I owe a great deal of thanks to Mrs. Augustin and her very fine corps of workers for an excellent job of

work in putting this into being and proper form.

You will have noticed that there have been several variations from the usual past procedures in this year's program, partly from necessity, partly as a sort of a trial to see how things worked out. For one thing, we had voted at our regular meeting, not to have discussants, formal discussants other than those who discuss papers spontaneously from the floor. You should realize that has reduced the amount of work which has been required and the amount of correspondence by half, which has been a very great relief to the people at the Chicago office and members of the committee. This was done with the purpose of streamlining the meetings to some degree and to see how the membership might receive such change in programming. Two scientific sessions in the morning and one in the afternoon have been planned, and the motion pictures ran concurrently with the early afternoon sessions. The instructional seminar was omitted by recommendation of the Academy Program Committee and the Congress Committee on Advances in Education. It is to be determined whether the membership would prefer to have an instructional seminar in addition to the very fine instructional educational program of the Academy.

Respectfully submitted,  
Arthur C. Jones, *Chairman*  
Donald A. Covalt  
Everill W. Fowlks  
Frederic J. Kottke  
Walter J. Zeiter

### Public Relations

This committee did not have too many problems to consider. You will be happy to know, with regard to the controversy that reigned in the American Medical Association between the Section on Orthopedic Surgery and the Section on Physical Medicine, the atmosphere has changed markedly. Whereas we disagreed at our first two sessions in 1955, it now appears that all our liaison problems are ironed out. We have agreed if there are problems in the future, we will have a meeting to settle them. We are in the stage where we will have some jurisdictional disputes for another decade or two. They are gradually being resolved.

Public relations, on the whole, have been improving. We are going to have bitter local disputes from time to time, but on a national scale I think our public relations are far better than they were five years ago.

Respectfully submitted,  
Frank H. Krusen, *Chairman*  
Carrie E. Chapman  
Ralph E. DeForest  
George M. Piersol

### Rehabilitation Centers

Your committee recognizes as a problem of prime importance the rapid development of so-called rehabilitation centers, which are sponsored by lay groups and which are without qualified medical direction. It recognizes also the growing importance of the organization named the Conference on Rehabilitation Centers. Inasmuch as it would seem vital to the welfare of handicapped persons that the American Congress of Physical Medicine and Rehabilitation and the Conference on Rehabilitation Centers maintain a close working relationship, the following recommendations are made.

*Recommendation:* That the American Congress of Physical Medicine and Rehabilitation makes a definite statement of policy as to type and amount of medical direction necessary for a rehabilitation center; this information is to be made available to all members of the Congress; of the Conference; the Office of Vocational Rehabilitation, and voluntary agencies dealing with rehabilitation services and to state and county medical societies.

*Recommendation:* That an official representative, upon invitation, of the American Congress of Physical Medicine and Rehabilitation be appointed by its Board of Governors to attend the annual meeting of the Conference on Rehabilitation Centers.

*Recommendation:* That each rehabilitation center apply for membership in, and attend the annual meetings of the Conference on Rehabilitation Centers.

*Recommendation:* That the Congress lay the foundation immediately for a future meeting of representatives from the AMA, the Congress, the OVR, and voluntary agencies concerned with rehabilitation, for the purpose of arriving at agreement on basic policies of rehabilitation facilities.

*Recommendation:* That the Congress go on record as opposed to the rapid development of treatment units without qualified medical direction.

Respectfully submitted,  
Harriet E. Gillette, *Chairman*  
Nila Kirkpatrick Covalt  
George G. Deaver  
Frederick E. Dugdale  
Walter J. Lee  
Milton Lowenthal  
Torsten H. Lundstrom  
Bernard J. Michela  
William J. O'Rourke  
Irving Tepperberg  
Peter A. Volpe  
Arthur E. White

## book reviews

*The reviews here published have been prepared by competent authorities and do not necessarily represent the opinions of the American Congress of Physical Medicine and Rehabilitation and/or the American Academy of Physical Medicine and Rehabilitation.*

**THE PERSON IN PSYCHOLOGY: Reality or Abstraction?** By Dr. Paul Lafitte. Cloth. Price, \$6.00. Pp. 233. Philosophical Library, Inc., 15 E. 40th St., New York 16, 1957.

Is modern psychology sidetracked into a blind alley of a maze of tests and measurements which shed but little light upon real life-experiences of a person? The author, an Australian psychologist, is quite convinced that this is the case: "... some difficulties are clearly due to the nature of psychology, which at the present seems to be developing so as to cut itself off deliberately from life." These difficulties are also partly due to psychology's immaturity. The main theme of the book centers around the author's grievance that in the development of applied psychology "... common experience is left outside the laboratory or test room and the psychologist studies only what can be simply defined, manipulated as an object, and measured, so that he can deduce laws which are exact even if they are irrelevant to human behavior."

In this quasi-philosophical critique of contemporary psychology, Dr. Lafitte indicts the methodology of the experimental, social, physiological, and industrial psychologists as well as that of the empiricists and psychoanalysts. While the author's major premise, though not novel, merits consideration, he fails to offer a realistic solution as to how human behavior can be studied comprehensively without introducing any artefacts.

Of special interest to the reviewer was the reference to our present inadequate methods of psychological evaluation of candidates for proper industrial placement. In the chapter "The Person in the World," the author claims that observation of a client in an actual job situation by far supercedes any information gathered from the numerous paper and pencil and specialized aptitude tests.

In spite of the fact that the book deals with fundamental issues its usefulness is regrettably limited by the author's literary style and method of presentation. This is a most difficult book to read and to keep up with the writer's trend of thought oftentimes buried in an avalanche of philosophical polemics is a laborious task. The volume may be of interest to advanced students of psychology but it is hardly suitable for the average reader of this

journal. Nevertheless, "The Person in Psychology" can serve a useful purpose if the author can influence his colleagues to pay more attention to the study of man's behavior in his natural setting of everyday function. (Jack Meislin, M.D.)

**FUNDAMENTALS OF CLINICAL NEUROPHYSIOLOGY.** By Paul O. Chatfield, M.D. Cloth. Price, \$8.50. Pp. 392, with illustrations. Charles C Thomas, Publisher, 301-327 E. Lawrence Ave., Springfield, Ill., 1957.

Of the basic sciences of fundamental interest to the physiatrist probably none takes precedence over neurophysiology. The background of this complex subject has been developed in the physiology laboratory and a critical analysis of this material has not heretofore been available. The fundamental information on subjects such as the mechanism of the nerve impulse, reflex patterns, inhibition, conduction and response are elaborated upon. Separate short chapters also deal with the special receptor organs. These include discussion of pain and cutaneous sensation, hearing, vision, taste and smell.

Important chapters are devoted to the physiology of synaptic transmission and spinal reflexes, postural coordination, the basal ganglia, cerebellum, vestibular influences and cortical control of motor functions. These, of course, are of special interest to those in Physical Medicine seeking understanding of some of the newer muscle reeducation technics. Other chapters include discussion of the nervous control of breathing and some information on the autonomic neuron system.

This is not a book for quick perusal, but rather as a basis for serious study of text and bibliography to develop a sturdy background of knowledge in the important subject of neurophysiology. (Arthur L. Watkins, M.D.)

**ISOTOPEN-FIBEL FUR DEN ARZT.** Eine Einführung in Die Medizinischen Anwendungen Der Radioaktiven Isotope. By Walter Beier, Ph.D., and Erich Dörner, M.D. Cloth. Price, 12.75 DM. Pp. 201, with illustrations. Georg Thieme, Leipzig C1, Germany, 1957.



The authors of this primer on isotopes have become well known through their recently published volumes on *Physics and Its Use in Biology and Medicine*. In the present volume they present a large amount of information on practically every phase of work with radioactive isotopes. They discuss the foundations of radiation physics, production of isotopes used in medicine, measurements of various types of radiation, from photographic methods to the use of scintillation counters, interaction between radiation and matter, radiation damage, protection, use of isotopes in treatment and diagnosis. Properties and uses of 20 isotopes from carbon-14 to gold-198 are described in some greater detail because they are considered of importance in biology and medicine. Special pieces of equipment such as the scintiscanner, the cobalt-60 teletherapy apparatus, the betatron and nuclear reactor as well as special techniques such as the treatment of a carcinoma of the fundus by intrauterine application of cobalt-60 pearls or the use of elastic bags with liquid isotopes for uniform treatments in large body cavities, are presented. Many, mostly excellent, illustrations add considerably to the text. Due to the small space available for the vast amount of material presented the text is naturally cut down to a minimum. Frequently only one or two sentences explain a piece of equipment or a technical procedure. The bibliography lists over 300 titles, about one-half of which refer to German authors while the other half is divided among American, British, French and Russian authors. This booklet on isotopes is a real primer and as such particularly useful for beginners in the field. (Otto Glasser, Ph.D.)

AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS INSTRUCTIONAL COURSE LECTURES. Edited by R. Beverly Raney, M.D. Cloth. Price, \$12.00. Pp. 327, with illustrations. Vol. XIII. J. W. Edwards Publisher, Inc., Ann Arbor, Mich., 1956.

This thirteenth volume in the series is a storehouse of information, excellently illustrated and written in a varied style reflecting the personality of each lecturer and so giving it a freshness of approach. It will be useful not only to the orthopedist but to the physiatrist as well. The latter will find the book most profitable in questions of therapeutic indications for surgical and conservative measures alike.

The subject matter ranges widely in areas of theoretical and practical interest. Eleven chapters deal with some problems relating to the hip, the spine, peripheral neuropathy, affections of bone, traumatic lesions of bone and joint, the anatomy and physiology of bone, tumors of soft tissues of the musculoskeletal system, peripheral vascular disease, the chronically disabled victim of industrial

injury to the back, statistical validation of clinical research and, finally, education in orthopedics. To mention only a few lectures would be doing violence by omission to the remaining, as all discussions are worth studying. However, because of the necessities of a review, this is unavoidable.

The section on osteochondrosis is a scholarly review of the entire subject exhaustively exploited. The presentation of non-disc sciatica is illuminating and states the current concepts of this type of low back pain. Peripheral nerve injuries gives a lucid correlation of physiological pathology, anatomy and clinical considerations, which form the basis regarding the decision for surgical or conservative attack. This discussion is complemented by one following on hand surgery, dealing most interestingly, in content and style, with nerve injuries affecting the hand. The section on injuries in and about the shoulder is most rewarding diagnostically and therapeutically. Disability evaluation, concerned mainly with the low back, should be required reading for the industrial surgeon and physiatrist. Certain important conclusions are reached, aside from therapy, which could have far-reaching effects upon compensation medicine. (Edward Gordon, M.D.)

HORMONES, BRAIN FUNCTION AND BEHAVIOR. Edited by Hudson Hoagland. Cloth. Price, \$7.00. Pp. 257, with illustrations. Academic Press, Inc., 111 Fifth Ave., New York, 1957.

At a conference on neuroendocrinology, 12 papers were presented, in May 1956, at Columbia University's Arden House on the Hudson. This book includes not only a transcript of these papers but also the discussion which followed each paper. The conference was divided into four sessions. Session one consisted of three papers on effects of steroid hormones on the nervous system. The hypothesis proposed by Fox and Gifford that "altered mental states produced by ACTH and Cortisone are explained on the basis of an increase in instinctual tension" is discussed by one of the essayists. In the same chapter is an interesting comment on the association of schizophrenia with the aberration of adrenaline metabolism. The production by Lysergic Acid Diethylamide of a schizophrenia-like state is also developed. Session Two deals with sex hormones and behavior in man and animals. The third session was devoted to a discussion of serotonin, epinephrine, and their metabolites in relation to experimental psychiatry. Particular emphasis is placed on serotonin and its importance in maintaining normal mental processes. The fourth session consisted of three papers on the thyroid and behavior. Among the matters discussed are psychiatric problems associated with myxedema; hypothy-

roidism with psychosis, and the correlation of phosphate retention with hypothyroidism as observed in schizophrenia.

The papers will be extremely interesting to internists, endocrinologists, and psychiatrists, and will no doubt be followed by future reports of hormone studies associated with brain function and behavior. (Harry T. Zankel, M.D.)

#### THE PHYSIOLOGY OF NERVE CELLS.

By John Carew Eccles. Cloth. Price, \$5.75. Pp. 270, with illustrations. The Johns Hopkins Press, Homewood, Baltimore 18, 1957.

Expanded from the author's Herter Lectures at Johns Hopkins in 1955, this book forms a resumé of the functional anatomy of motor neurons of the spinal cord. In particular it deals with the functional anatomy of synaptic transmission.

The determination of the actual gap between an axon knob or "bouton" and dendrite which it is to stimulate has been determined both by theoretical considerations and confirmed by electron microscopy as being 200 Angstroms in width. There has also been very good documentation for trans-synaptic conduction by a chemical mediator, including the time requirements.

Most interesting has been in this monograph a description of the single cell techniques which have been worked out since the days of Erlanger and Gasser, with reliable descriptions of the resting potential on the cell and the action potential of a single cell when activation has occurred. These experiments were carried out with warm blooded mammals (cat) by means of micromanipulators on the intact spinal cord. The way in which the membrane potential difference ( $-70$  V) is maintained by means of what is called the "sodium-potassium pump" is well explained. In the living cell sodium is being pumped into the cell and potassium out just as similar ionic exchanges take place in the renal tubular epithelium. Diffusional fluxes take place in the opposite direction.

One of the fascinating mysteries of neurophysiology is apparently cleared up by the work on inhibition. It appears that the excitatory post-synaptic potential is cancelled by a mirror-image potential known as the inhibitory post-synaptic potential, which is in turn produced in synapses by a specific transmitter substance which changes ionic permeability of the sub-synaptic membrane so that it retains a high degree of permeability to sodium ions.

Of particular interest is the relatively recent discovery of specific inhibitory cells which have a braking action on motoneurons of the spinal cord, produced by antidromic impulses which stimulate small cells nearer the midline, designated Renshaw cells. These in turn are inhibitory for the motoneurons concerned. Obviously this is a negative feedback or governor system to prevent impulse transmission from running away with itself. One of the schemes for micro-anatomic differentiation between an excitatory and an inhibitory synapse consists of a postulate that the latter has larger gaps in a sieve-like structure which permits freer passage of the larger  $\text{Na}^+$  ions. The excitatory synapse on the other hand would have smaller, more uniform, sieve-like structures which would readily pass  $\text{K}^+$  ions and not  $\text{Na}^+$ .

One of the conclusions from reading this excellent up-to-date summary is to revise one's notions of inhibition in long tracts down the spinal cord. We are accustomed either by direct statement or by inference to think of most of the long tracts in the pyramidal system and some from the reticular formation as being directly inhibitory. This newer information makes it likely that everything is excitatory until one step preceding the motoneuron and it is at this stage that the phenomenon of inhibition is encountered. Another conclusion is that the sweeping assumption sometimes made that acetylcholine is the sole transmitter substance throughout the central nervous system can no longer be trusted. Although it is the specific transmitter substance in the case of Renshaw cell inhibition, it apparently is not the transmitter substance in incoming sensory discharges through the dorsal root.

Another cautious reappraisal which has to be made at this time is the flat statement that regeneration of axons does not occur in the central nervous system. Regeneration apparently does occur but the chance of hooking up the original connections plus the effect of glial scar make such regeneration with present neurosurgical methods of no practical consequence.

For persons interested in basic neurophysiology this book is highly recommended. It is both refreshing to be forced to relearn neuron doctrine and of course disconcerting to realize that ten years hence this too will be supplanted by further elaborations and refutations of the information here presented. (Sedgwick Mead, M.D.)

**3rd International Congress of Physical Medicine**

**IIIe Congres international de Medecine Physique**

**3° Congreso internacional de Medicina Fisica**

**3. internationalen Kongress für Physikalische Medizin**

*Week of*

*August 21, 1960*

**WASHINGTON, D. C., U. S. A.**

Preliminary information regarding this meeting may be had from the Office of the Secretary General:  
WALTER J. ZEITER, M.D., or from the EXECUTIVE SECRETARY, DOROTHEA C. AUGUSTIN,  
30 North Michigan Avenue, Chicago 2, Illinois.

*You are invited to make application to present*

a scientific paper, exhibit or film — at the

36th Annual Session of the American Congress of Physical Medicine  
and Rehabilitation, Philadelphia, The Bellevue Stratford, August  
24-29, 1958.

Please check one or any of the following. Upon receipt of this  
application form, the necessary information will be sent to you. The  
decision of the Program Committee for the 1958 session covering any  
portion of the meeting will be final.

☐ I wish to present a scientific paper; the tentative title is \_\_\_\_\_

\_\_\_\_\_

☐ I wish to present a scientific exhibit; the tentative title is \_\_\_\_\_

\_\_\_\_\_

☐ I wish to present a scientific film; the tentative title is \_\_\_\_\_

\_\_\_\_\_

SIGNATURE \_\_\_\_\_

(Please Print Your Name Here)

ADDRESS \_\_\_\_\_

(Please Print)

DATE \_\_\_\_\_



**T**HE special world your little one lives in is only as secure as you make it. Security begins with saving. And there is no better way to save than with U.S. Savings Bonds. Safe—your interest and principal, up to any amount, guaranteed by the Government. Sound—Bonds now pay  $3\frac{1}{4}\%$  when held to maturity. Systematic—when you buy regularly through your bank or the Payroll Savings Plan. It's so convenient and so wise—why not start your Savings Bonds program today? Make life more secure for someone you love.

The U. S. Government does not pay for this advertisement. It is donated by this publication in cooperation with the Advertising Council and the Magazine Publishers of America.





now available . . .  
without charge . . .

- "Employment Outlook for Physical Therapists: A Survey of Salary and Personnel Policies" by Augustin & Ehmann. (Reprint from August, 1957 Archives of Physical Medicine and Rehabilitation)
- American Registry of Physical Therapists: Booklet of Information.
- Guide Law: An Act Defining and Regulating Physical Therapy, etc.
- By-Laws of the American Registry of Physical Therapists.

WRITE REGISTRAR  
AMERICAN REGISTRY OF PHYSICAL THERAPISTS  
30 NORTH MICHIGAN AVENUE  
CHICAGO 2, ILLINOIS

#### OPPORTUNITIES AVAILABLE

**WANTED: PHYSIATRISTS:** Diplomates or eligible: (a) Direct department, new 450-bed general hospital, New England. (b) Direct department, 500-bed general hospital; child psychiatric program including in-patient section will be established in '58; university city, Midwest. **THERAPISTS:** (c) Occupational; 350-bed general hospital; California. (d) Occupational and physical; new 65-bed hospital affiliated large teaching hospital and university; South. (e) Occupational; large tuberculosis hospital; university city, Southwest; \$5400. (f) Speech and occupational; rehabilitation center, New England; \$3800-\$4500. (g) Occupational, to direct department, 700-bed general hospital; \$4654-\$5577; Midwest. (h) Physical; 37-man group; university city, Midwest. (i) Top physical; community treatment center; both charity and pay patients; well supported by physicians and day people; university town, West. (j) Staff therapist; 400-bed hospital near famed resort town, beautiful beach area near San Francisco. For further information regarding these opportunities, please write Burnelle Larson, Medical Bureau, 900 North Michigan, Chicago.

#### REGISTERED STAFF PHYSICAL THERAPIST

for well-established department in 330-bed voluntary general hospital. Wide variety of cases. Above average starting salary. Air-conditioned department. Five day work week. University city of 80,000. Apply Decatur and Macon County Hospital, Decatur, Illinois.

#### GRADUATES OF APPROVED SCHOOLS FOR PHYSICAL THERAPISTS

for  
California State Hospitals  
Veterans' Home  
Schools for Handicapped

Requires registration with  
California Medical Board

Need no experience to start  
at \$395; raise to \$415 after  
six months; promotions to \$530

STATE PERSONNEL BOARD  
Box 70, 801 Capitol Avenue  
Sacramento, California

#### PHYSIATRIST

Physiatrist needed to direct Department of Physical Medicine and Rehabilitation in a large general hospital. Department includes a large physical therapy section and a small newly formed occupational therapy section, with four full-time, one part-time Physical Therapists, and one full-time Occupational Therapist. Physician selected becomes a member of the active medical staff. He will be expected to participate in the hospital's teaching program. Financial arrangements are open. For further information, please address inquiries to John C. Mackenzie, M.D., Director, TOURO INFIRMARY, 3516 Prytania St., New Orleans, La.

**WANTED:** Registered female physical therapist. 250 bed general hospital. 40-hour week, 6 paid holidays, 2 weeks paid vacation annually, cumulative sick leave. Social Security and Blue Cross. Salary \$400 per month with increase of \$25 at 6 months and one year. Write Ellen E. Church, Administrator, Union Hospital, Inc., Terre Haute, Indiana.

**Physical Medicine and Rehabilitation Residencies Available:** General Medical and Surgical Teaching Hospital. 1500 Beds, University Medical Schools Affiliation. 3 years approved residency. Board approved. Non-career residencies annual stipend, \$2,840-\$4,500; career residencies annual stipend \$5,915-\$8,990. Appointment to grade and stipend dependent upon qualifications. U. S. Citizenship and graduate of approved medical school required. Inquire: Director, Professional Medical Services, GM&S Hospital, VA Center, Los Angeles 25, California.

# HYDROCOLLATOR

Steam  
PACK

MOIST HEAT

## MASTER UNITS

Four all stainless steel models to meet the various requirements in hospitals, clinics, physicians' offices, and patients' homes. Automatically maintains Steam Packs in water at proper temperature — constantly ready for immediate use. No plumbing used.

D-3 2 Pack



E-1 4 Pack

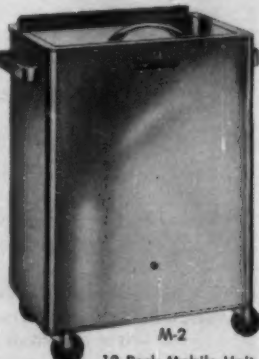


SS — 6 Pack



M-2

12 Pack Mobile Unit



Now moist heat can be applied conveniently, effectively and with a minimum investment in equipment. No dripping, no wringing, no repeated applications. Each application gives at least 30 minutes effective moist heat. The Steam Pack is merely heated in water, wrapped in a towel, and applied. Standard equipment in leading hospitals and clinics across the nation.

DESCRIPTIVE MATERIAL ON REQUEST

CHATTANOOGA PHARMACAL CO., INC.  
CHATTANOOGA 5, TENNESSEE

Immediate placement for additional qualified staff physical therapists (male or female) for physical medicine and rehabilitation institute serving two hospitals in largest centrally located industrial center in Illinois. Full time medical supervision, 40 hour five day work week, salary range \$4200-\$4800. Write: Administrator, Institute of Physical Medicine and Rehabilitation, 619 N. Glen Oak Ave., Peoria, Ill.

*Immediate Opening:* Physical Therapist for recently established Physical Medicine and Rehabilitation Department under direction of a Physiatrist. Good salary, 40 hour week, paid holidays and vacation. Variety of in- and out-patient cases treated. Apply Administrator, The Williamsport Hospital, Williamsport, Pennsylvania.

*Specialists in  
Electro Medical  
Equipment for  
Physical Therapy,  
Rehabilitation  
and Diagnosis*



**FRED LANDAUER CO.**

11 BLENHEIM COURT  
ROCKVILLE CENTRE, L. I., NEW YORK  
Tel. RO 6-4527



REPRESENTING LEADING MANUFACTURERS

*Dependable  
Repair Service  
Liberal Trade-Ins  
Consultant Service  
for planning new departments  
We buy and sell  
Good Used Equipment*

## Georgia Warm Springs Foundation GRADUATE COURSE

Physical Therapy and Occupational Therapy  
In the Care of Neuro-Muscular Disease

This course is open to graduates of approved schools of physical and occupational therapy. Such graduates must be members of the American Physical Therapy Association and/or American Registry of Physical Therapists, or American Occupational Therapy Association.

Entrance Dates: First Monday in January, April and October.

**Course I** - Emphasis on care of convalescent neuro-muscular disease with intensive training in functional anatomy, muscle testing, muscle reeducation and use of supportive and assistive apparatus. This course is complete in itself.

**Course II** - Three months duration with Course I prerequisite. Emphasis on care of severe chronic physical handicaps with intensive training in resumption of functional activity and use of adaptive apparatus.

**In-Service Training Program** - Fifteen months duration at salary of \$225 per month plus full maintenance, increasing to \$250 per month at the completion of nine months. This program includes training in Courses I and II.

**Tuition:** None. Maintenance is \$100 per month (except those on In-Service Training Program). For scholarship to cover transportation and maintenance for Courses I and II, contact National Foundation for Infantile Paralysis, Inc., 126 Broadway, New York 5, New York. (Scholarships require two years of experience.)


For further information contact:

**ROBERT L. BENNETT, M.D.**

Medical Director

Georgia Warm Springs Foundation

WARM SPRINGS, GEORGIA



*A thoroughly modern  
private Spa under  
conservative medical  
supervision*

**THE Homestead**  
HOT SPRINGS, VIRGINIA

M. B. Jarmen, M.D., Medical Director

## Elgin PROGRESSIVE RESISTANCE EXERCISE EQUIPMENT



Elgin Exercise  
Unit Model  
No. A-1500

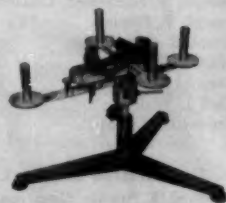
... especially designed for the  
administration of over 100 therapeutic exercises!

It has been proven that exercise therapy must be accurately controlled if the desired end results are to be obtained . . . Elgin, the original designers and manufacturers of Progressive Resistance Equipment, offers the only complete line of exercise equipment designed to meet these requirements. The Elgin line has been developed, in a scientific manner, to give Doctors and Therapists the correct clinical tools with which to properly administer exercise therapy to both surgical and non-surgical patients.

It provides a wide exercise range, from simple functional exercises to the most highly definitive focal exercises. This equipment also provides a means for an effective and efficient out-patient clinic for patients requiring therapy. An Elgin sales consultant would appreciate the opportunity of assisting you in planning for the inclusion of Progressive Resistance Exercise Equipment in your physical therapy department. Write today for complete information.



ELGIN EXERCISE UNIT  
Model No. AB-150



ELGIN LEG EXERCISE  
(Ankle) Model No. LE-125

Write today for information on the complete line of Elgin Exercise Accessory Equipment and Therapy Techniques, request Catalog 200.



**EXERCISE  
APPLIANCE CO.**

P. O. BOX 132 • ELGIN, ILLINOIS

---

# Members

## Standing Committees of the American Congress of Physical Medicine and Rehabilitation

### 1958

---

#### Advances in Education

Arthur S. Abramson, *Chairman*  
Robert W. Boyle  
Harriet E. Gillette  
Harold N. Neu  
Elias M. Throne

#### Awards for Scientific Exhibits

David M. Paul, *Chairman*  
John H. Kuitert  
David S. Rausten  
Joseph B. Rogoff  
Abraham Vinograd

#### Balneology and Health Resorts

Igho H. Kornbluth, *Chairman*  
E. C. Christensen  
Boris J. Paul  
Edward P. Reese

#### Braces, Splints and Protheses

Odon F. von Werssowetz, *Chairman*  
Leonard F. Bender  
William J. Erdman, II  
Edward T. Haslam  
W. Kenneth Lane  
Frederick E. Vultee, Jr.  
Jessie Wright

#### Chronically Ill and Aged

Joseph N. Schaeffer, *Chairman*  
Joseph F. Dreier  
Bruce B. Grynbaum  
Max K. Newman  
Samuel Sherman  
Earl J. Wylie  
Frederick Ziman

#### Constitution and By-Laws

Richard T. Smith, *Chairman*  
Earl C. Elkins  
John H. Kuitert

#### Cooperation with Air Force, Army, Navy, Public Health and Veterans Administration

Robert V. Miller, Jr., *Chairman*  
W. Harvey Moore  
Anton A. Tratar  
A.B.C. Knudson, *Ex-officio*

#### Cooperation with Food and Drug Administration

Joseph B. Rogoff, *Chairman*  
Thomas P. Anderson  
Donald J. Erickson  
Rex O. McMorris  
Fred B. Moor  
James W. Rae, Jr.  
David Rubin  
Frederick J. Sheffield  
George C. Twombly, Jr.

#### Correlation of Physical Medicine and Psychiatry

Daniel Dancik, *Chairman*  
Allen W. Byrnes  
C. DeWitt Dawson  
Lucile M. Eising  
Anita M. Isaac  
H. Frazer Parry  
William C. Schaefer

#### Essay Award

(ACPM&R Annual Essay Award  
and  
Bernard M. Baruch Essay Award)  
George D. Williams, *Chairman*  
Fritz Friedland  
Frederic T. Jung  
Israel Muss  
Abraham Vinograd

#### Ethics

Harold B. Luscombe, *Chairman*  
Louis P. Britt  
Maxwell D. Flank  
George H. Koepke  
Robert M. Krout

#### Finance

Sedgwick Mead  
Louis B. Newman  
Herbert W. Park  
Frank H. Krusen, *Ex-officio*

#### Foster, Encourage and Coordinate Research Projects

Joseph Goodgold, *Chairman*  
David I. Abramson  
Harvey E. Billig, Jr.  
Ralph E. DeForest  
Bror S. Troedsson

#### Gold Key Award

Frederic J. Kottke, *Chairman*  
Donald A. Covalt  
Donald J. Erickson  
Louis B. Newman  
Jerome S. Tobis

#### Implementation of Departments of Physical Medicine and Reha- bilitation in Medical Schools

E. C. Christensen, *Chairman*  
Arthur S. Abramson  
Gregory Bard  
Justus F. Lehmann

#### Legislation

Glenn Gullickson, Jr., *Chairman*  
Earl C. Elkins  
William C. Fleming  
Bruce B. Grynbaum  
Alfons J. Muller  
Raoul C. Psaki  
Dorothea C. Augustin, *Ex-officio*  
F. Manley Brist, *Ex-officio*

#### Medical Auxiliary Services Related to Physical Medicine and Rehabilitation

Herbert W. Park, *Chairman*  
Nadene Coyne  
Emily R. Hess  
Robert M. Krout  
Louis B. Newman

#### Medical Economics

Leonard J. Yamshon, *Chairman*  
Bertram M. Bernstein  
Joseph E. Cox  
S. Malvern Dorinson  
Edward M. Krusen  
William J. La Joie  
Joseph Martella  
Robert V. Miller, Jr.  
Arthur A. Rodriguez  
Frederick J. Sheffield  
Bror S. Troedsson



**Meeting Place**  
Walter J. Zeiter, *Chairman*  
Morton Hoberman  
Torsten H. Lundstrom  
Eugene W. Peters  
Howard F. Polley  
Dorothea C. Augustin, *Ex-officio*

**Membership**  
Otto Eisert, *Chairman*  
Hilda B. Case  
Carrie E. Chapman  
Robert F. Dow  
Elmer J. Elias  
Gustave Gingras  
Sherburne W. Heath, Jr.  
Herbert Kent  
Torsten H. Lundstrom  
Richard R. Owen

**Memorials and Lectureships**  
Frederic T. Jung, *Chairman*  
Jerome S. Tobis  
Walter J. Treanor

**Nominating**  
A.B.C. Knudson, *Chairman*  
Donald A. Covalt  
Harriet E. Gillette  
Gordon M. Martin  
Fred B. Moor

**Private Practice**  
David Siegel, *Chairman*  
Lee B. Greene  
Joseph L. Koczur  
Samuel A. Schuyler

**Program**  
Glenn Gullickson, Jr., *Chairman*  
Leonard F. Bender  
Harvey E. Billig, Jr.  
Everill W. Fowlks  
Morton Hoberman  
Harold Lefkoe  
Milton Lowenthal  
Walter J. Zeiter  
Dorothea C. Augustin, *Ex-officio*

**Public Relations**  
Ralph E. Worden, *Chairman*  
Harold Dinken  
Charles D. Shields

**Rehabilitation Centers**  
Edward B. Shires, *Chairman*  
Herman J. Flax  
Gustave Gingras  
O. Leonard Huddleston  
Keith C. Keeler  
Kenneth S. Landauer  
Rex O. McMorris  
Harry W. Mims  
Herbert W. Park  
H. Frazier Parry  
Juan Jose Quezada  
Odon F. von Wersowetz  
Ralph E. Worden

## REGIONAL OFFICERS

### AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION

**EASTERN SECTION** — Chairman, Elmer J. Elias, Trenton 9, N. J.; Secretary, Isadore Levin, 1801 Eye St., N.W., Washington 6, D. C.

States represented: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and (District of Columbia).

**MIDWESTERN SECTION** — Chairman, Robert W. Boyle, Milwaukee; Secretary, Adeline B. Gauger, 1121 N. Waverly Pl., Milwaukee 2.

States represented: Colorado, Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin and Wyoming.

**WESTERN SECTION** — Chairman, David Rubin, Los Angeles; Secretary, Robert V. Miller, 133 S. Lasky Dr., Beverly Hills, Calif.

States represented: Arizona, California, Utah, and Territory of Hawaii.

**NORTHWESTERN SECTION**—Chairman, Harold E. Elger, Vancouver, Wash.; Secretary, Everill W. Fowlks, Chief, Physical Medicine and Rehabilitation Service, VA Hospital, Portland.

States represented: Idaho, Montana, Oregon, and Washington.

**CENTRAL SECTION** — Chairman, Keith C. Keeler, Akron, Ohio; Secretary, Hilda B. Case, Department of Physical Medicine and Rehabilitation, University Hospital, Cleveland.

States represented: Indiana, Kentucky, Michigan, Ohio, Virginia and West Virginia.

**SOUTHERN SECTION** — Chairman, Torsten H. Lundstrom, Mountain Home, Tenn.; Secretary, Harry W. Mims, Director, Physical Medicine and Rehabilitation, Medical College Hospital, Medical College of South Carolina, 55 Doughty St., Charleston, S. C.

States represented: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee and Texas.

*Announcing . . .*

## **The Essay Award**

sponsored by the



# **AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION**

To stimulate interest in the field of physical medicine and rehabilitation, the American Congress of Physical Medicine and Rehabilitation will award annually, a prize for an essay on any subject relating to physical medicine and rehabilitation. The contest, while open to anyone, is primarily directed to interns, residents, graduate students in the pre-clinical sciences and graduate students in physical medicine and rehabilitation. The Essay Award Committee suggests that members of the American Congress and American Academy of Physical Medicine and Rehabilitation bring this announcement to the attention of interested persons. The following rules and regulations apply to the contest:

1. Any subject of interest or pertaining to the field of physical medicine and rehabilitation may be submitted.
2. Manuscripts must be in the office of the American Congress of Physical Medicine and Rehabilitation, 30 N. Michigan Ave., Chicago 2, not later than June 2, 1958.
3. Contributions will be accepted from interns, residents, graduate students in the pre-clinical sciences, and graduate students in physical medicine and rehabilitation.
4. The essay must not have been published previously.
5. The American Congress of Physical Medicine and Rehabilitation shall have the exclusive right to publish the winning essay in its official journal, the ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION.
6. Manuscripts must not exceed 3000 words (exclusive of headings, references, legends for cuts, tables, etc.), and the number of words should be stated on the title page. An original and one carbon copy of the manuscript must be submitted.
7. The winner shall receive a cash award of \$200.
8. The winner shall be determined by the Essay Award Committee composed of four members of the American Congress of Physical Medicine and Rehabilitation.
9. All manuscripts will be returned as soon as possible after the name of the winner is announced.
10. The American Congress of Physical Medicine and Rehabilitation reserves the right to make no award if, in the judgment of the Essay Award Committee, no contribution is acceptable. Announcement of the winner will be made at the annual meeting.

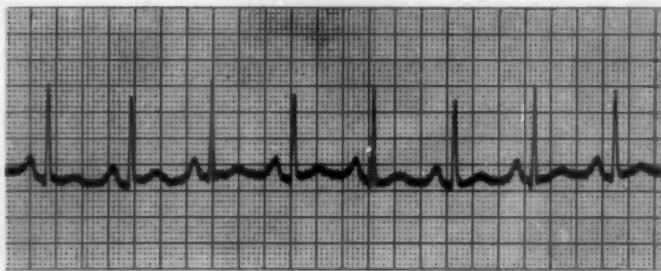
# BERNARD M. BARUCH ESSAY AWARD ...

*Sponsored by the*  
**AMERICAN CONGRESS  
of  
PHYSICAL MEDICINE  
AND REHABILITATION**



*A*n annual award of \$100 will be given as a prize for an essay on any subject relating to physical medicine and rehabilitation. The following rules and regulations apply:

1. Any subject of interest or pertaining to the field of physical medicine and rehabilitation may be submitted.
2. Manuscripts **must be** in the office of the American Congress of Physical Medicine and Rehabilitation, 30 N. Michigan Ave., Chicago 2, not later than June 2, 1958.
3. *Contributions will be accepted from medical students only.*
4. The American Congress of Physical Medicine and Rehabilitation shall have the exclusive right to publish the winning essay in its official journal, the *Archives of Physical Medicine and Rehabilitation*.
5. Manuscripts must not exceed 3000 words (exclusive of headings, references, legends for cuts, tables, etc.), and the number of words should be stated on the title page. An original and one carbon copy of the manuscript must be submitted.
6. The essay must not have been published previously.
7. The winner shall receive a cash award of \$100.
8. The winner shall be determined by the Essay Award Committee composed of four members of the American Congress of Physical Medicine and Rehabilitation.
9. All manuscripts will be returned as soon as possible after the name of the winner is announced. The winning manuscript becomes the exclusive property of the American Congress of Physical Medicine and Rehabilitation.
10. The American Congress of Physical Medicine and Rehabilitation reserves the right to make no award if, in the judgment of the Essay Award Committee, no contribution is acceptable. Announcement of the winner will be made at the annual meeting.



The Physiatrist and the Therapist have little to do with Electrocardiography but I thought many of my friends would be interested in knowing that after three years of most intensive development, we here at the Birtcher Plant are currently in production and are announcing our new Electrocardiograph. Similarly, we will be introducing an Electrocadioscope in the month of April.

Our initial objective in designing these instruments was to produce simply a superior device to those presently available, whether or not we were compelled to sell it at a higher price. I think our technical staff (14 engineers—physicists, 3 consulting M.D.'s) has succeeded admirably. Please hold a good thought for me—I've got much at stake. Thanks.

Ultrasonics goes booming along with more and more favorable reports confirming previously reported successes. Medical investigators frequently enthusiastically report to me most favorable results in treatment of human ailments heretofore unreported as treated by Ultrasonics. I've got some dillies on Ultrasonics in eczema and external thrombotic hemorrhoids and simple prostatic hypertrophy with urinary retention. I know of some very interesting studies going on with Ultrasonics in direct application to the heart and another in Peyronie's disease.

Sales of our four models of Ultrasonic equipment are excellent — particularly since all now have our exclusive 5-Way Adjustable Transducer. Much to my surprise, our portable Megason VI (with its modest price label of \$375.00, although a full size machine with a 5-Way Transducer) is selling faster than I've been able to make them. There must be more people who lug these things than I thought.

If you would like your mailbox loaded and want reprints, and of course the usual advertising material on Ultrasonics, Infrared, contractual currents, Spot-Quartz Ultraviolet, Short Wave Diathermy or even on our new heart instruments, the Electrocardiograph, Cardioscope, Defibrillator or Heartpacemaker, or on Electrosurgical devices, a post card will get you several pounds of it.

Best wishes for 1958 — May all your patients be pleasant, respond favorably and pay their bills very promptly.

Cordially,

*Cecil Birtcher*  
C. J. BIRTCHER, President  
The Birtcher Corporation



**Birtcher**

**HONEST VALUE... SINCERELY PRESENTED**

4371 Valley Boulevard, Los Angeles 32, California